THIS PROSPECTUS CO 120002 PETERING OF SECURITIES ONLY IN THOSE JURISDICTIONS WHERE THEY MAY BE LAWFULLY OFFERED

NO SECURITIES COMMISSION OR SIMILAR AUTHORITY IN CANADA HAS IN ANY WAY PASSED UPON THE MERITS OF THE SECURITIES OFFERED HEREUNDER AND ANY REPRESENTATION TO THE CONTRARY IS AN OFFENCE.

PROSPECTUS

DATED: JULY 16, 1990

**NEW ISSUE** 

AND STRY OF ENERGY, MINES

AND PETROLE MOTOES

Rec's AUG 10 1990

SAMITHERS, B.C.

1560 - 701 West Georgia Street Vancouver, British Columbia (604) 662-8424 (the "Issuer")

028, 39,39

800,000 COMMON SHARES WITHOUT PAR VALUE

	Price to Public 1	Commission	Net Proceeds to be Received by Issuer <sup>2</sup>
Per Share	\$0.50	\$0.05	\$0.45
Total	\$400,000.00	\$40,000.00	\$360,000.00

<sup>&</sup>lt;sup>1</sup> The price of the securities offered hereby was determined by negotiations between the Issuer and the agent.

The Vancouver Stock Exchange has conditionally listed the securities offered by this Prospectus. Listing is subject to the Issuer fulfilling all of the requirements of the Vancouver Stock Exchange within 180 days of the Effective Date of this Prospectus, including prescribed distribution and financial requirements.

THERE IS CURRENTLY NO MARKET FOR THE SECURITIES OF THE ISSUER.

A PURCHASE OF THE SECURITIES OFFERED BY THIS PROSPECTUS MUST BE CONSIDERED A SPECULATIVE INVESTMENT. All of the properties in which the Issuer has an interest are in the exploration and development stage only and are without a known body of commercial ore. Reference is made to "Risk Factors" on page 1.

NO PERSON IS AUTHORIZED BY THE ISSUER TO PROVIDE ANY INFORMATION OR TO MAKE ANY REPRESENTATION OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS IN CONNECTION WITH THE ISSUE AND SALE OF THE SECURITIES OFFERED BY THE ISSUER.

Upon completion of this Offering this issue will represent 31.87% of the common shares then outstanding as compared to 36.49% that will then be owned by the controlling persons, promoters, directors and senior officers of the Issuer assuming the entire offering is sold but is not oversubscribed as allowed by the Greenshoe Option granted to the Agent. See "Principal Holders of Securities" for details of common shares held by directors and senior officers of the Issuer.

One or more of the directors of the Issuer has an interest, direct or indirect, in other natural resource companies. Reference should be made to the section captioned "Potential Conflicts of Interest" on page 27 herein for a comment as to the resolution of possible conflicts of interest.

This prospectus also qualifies the issuance of the agent's warrants, the sale at the offering price of any shares pursuant to the exercise of the Greenshoe Option and the sale at the market price at the time of sale of any shares which the agent may acquire pursuant to its guarantee. The agent may sell any shares acquired upon the exercise of the agent's warrants pursuant to the Securities Act and Regulations without any further qualification. The Issuer will not receive any proceeds from the sale of these shares, all of which proceeds will in such event accrue to the agent.

The issue price to the public per common share exceeds the net tangible book value per common share at March 31, 1990 by \$0.32, representing a dilution of 74% after giving effect to this offering. Reference is made to the heading "Risk Factors and Dilution" on page 27 herein.

We, as agent, conditionally offer these securities subject to prior sale, if, as and when issued by the issuer and accepted by us in accordance with the conditions contained in the Agency Agreement referred to under the section captioned "Plan of Distribution" on page 1 herein, subject to offering and to approval of all legal matters on behalf of the Issuer by Messrs. Alexander, Holburn, Beaudin & Lang, Barristers and Solicitors, Vancouver, British Columbia.

AGENT

HAYWOOD SECURITIES INC. 1100 - 400 Burrard Street Vancouver, British Columbia

**EFFECTIVE DATE: JULY 24, 1990** 

Aug. 8/90

(n35)

<sup>&</sup>lt;sup>2</sup> Before deduction of the costs of the offering estimated to be \$30,000.

## A. PAVEY PROPERTY

## I. <u>Contracts</u>

Pursuant to an Option Agreement dated December 16, 1987, as amended by an agreement dated April 13, 1989 and by letters dated November 24, 1989 and July 5, 1990 (collectively the "Option Agreement"), Glen Harris and Graham Davidson, both of the City of Whitehorse in the Yukon Territory (collectively the "Optionors") granted the Issuer an option to acquire 7 mining claims situate in the Bennett Lake area of British Columbia, Atlin Mining Division, and more particularly described as follows (the "Pavey Property"):

Claim Name	Number <u>Units</u>	Record <u>Number</u>	Mining <u>Division</u>	Expiry <u>Date</u>
Pavey 1	20	2659	Atlin	August 1, 1991
Pavey 2	10	2660	Atlin	August 1, 1991
Pavey 3	20	2661	Atlin	August 1, 1991
Pavey 4	6	2662	Atlin	August 1, 1991
Pavey 5	12	2759	Atlin	November 7, 1990 <sup>1</sup>
Pavey 6	12	2760	Atlin	November 7, 1990 <sup>1</sup>
LQ	15	3041	Atlin	July 24, 1991

The Pavey 5 and 6 claims will be renewed by the filing of assessment work in relation to the work program which will be undertaken as disclosed in the "Use of Proceeds". A work program of \$4,800.00 will be required to renew the claims which are due to expire November 7, 1990, and the work program budgeted for the Pavey Property will be more than adequate for this purpose.

Pursuant to the Option Agreement the Issuer is to:

- (i) issue 50,000 common shares to the Optionors on the fifth business day following the issuance by the Superintendent of Brokers of a final receipt for this Prospectus;
- (ii) issue 50,000 common shares to the Optionors on or before October 31, 1990 or 10 days after the common shares of the Issuer commence trading on the Vancouver Stock

Exchange, in the event that a final receipt has not been issued by October 31, 1990;

- (iii) issue 50,000 common shares on or before October 31, 1991;
  - (iv) issue 50,000 common shares on or before October 31, 1992.

in order to fully exercise the option granted by the Option Agreement.

Further, the Optionor must make expenditures toward the development of the Pavey Property as follows:

- (i) \$50,000.00 on or before October 31, 1989<sup>1</sup>;
- (ii) an additional \$75,000.00 on or before December 31, 1990;
- (iii) an additional \$75,000.00 on or before October 31, 1991; and
  - (iv) an additional \$100,000.00 on or before October 31, 1992.

In the event that the Issuer both issues the Shares and makes the property expenditures referred to above within the specified time frames, the Issuer will have earned a 100% interest in the Pavey Property subject to the payment of a 3% net smelter return to the Optionor.

The Optionors are at arm's length to the Issuer and their out-of-pocket costs in relation to the Pavey Property amounted to \$17,500.00 as at the date of the Pavey Agreement.

As at March 31, 1990, the Issuer had spent \$94,111.00 on the exploration and development of the Pavey Property. The Issuer will spend an additional \$150,000.00 on a Phases I work program on the Pavey Property upon completion of the Offering and, contingent upon favourable results from Phase I, a Phase II work program has been recommended. Upon the completion of the Phase I work program the Issuer will have spent approximately \$246,000.00 of the \$300,000.00 expenditure on the Pavey Property which is required in order for the Issuer to earn its 100% interest in the Pavey Property.

### II. <u>Location and Access</u>

The Pavey Property is located in northwestern British Columbia, 28 kilometres south of Carcross and 60 kilometres south of Whitehorse. Its approximate geographic co-ordinates are 59° 56' north and 134° 43' west. The property lies on the east side of Bennett Lake and the White Pass and Yukon railroad passes through the western edge of the property. The Klondike Highway, which links Skagway, Alaska

to Whitehorse, Yukon, is 1 kilometre east of the property beside Tushi Lake. A natural access route to the property is available via a northwesterly trending valley. An access road to the property has been constructed.

## III. History

The Bennett Lake district was first explored by prospectors in the early 1890's. The Klondike gold Rush brought a great influx of people to the area in 1898. Gold and silver bearing quartz veins were discovered around Bennett Lake, Tagish Lake, and in the Wheaton River drainage. High grade mining operations at the Engineer mine beside Taku Arm, Tagish Lake and at the Venus and Big Thing mines on Montana Mountain, produced gold and silver periodically during the early 1900's.

Near Pavey, B.C. on the White Pass and Yukon Rail Road, two claims were staked by Fred H. Storey around 1913. The SILVER QUEEN and RUBY SILVER claims were reported to contain high grade silver mineralization. The early workers build a 1.2 km tramway from the railroad at 660 m elevation up the mountain side to 1,400 m elevation. This adit is located on the PAVEY #2 claim and remains open and in good shape. No records of production exist. Three shorter adits are located in a steep gully 2.5 km to the north (PAVEY #3 claim) of the Ruby Silver adit. The history of these workings is unknown, however, quartz veins were uncovered which contained visible gold.

In the 1980's the discovery and development of the Mount Skukum gold deposit in the Wheaton River area initiated a methodical staking rush which caused much of the Wheaton River and Lake Bennett district to be staked. Gold production at Mount Skukum commenced in 1986 and a production decision on the nearby Omni Resources property is pending.

From 1981 - 1986 Du Pont of Canada held the GAUG claims over the area presently covered by the PAVEY 1-4 claims. The GAUG claims expired on June 23, 1985 and were restaked by Glen L. Harris (one of the Optionors) as the Pavey 1-4 claims. During 1982 and 1983 Du Pont completed geological and geochemical surveys on the upland plateau and over a steep rocky gully which descends from the upland area to the east short of Bennett Lake. They rediscovered several old adits in the gully. Du Pont outlined strong precious and base metal geochemical anomalies in the gully and on the surrounding upland surface. Peak gold and silver values in soil were 1,150 ppb and 46 ppm respectively. Du Pont ceased exploration activities in the region after the 1983 season.

In 1987 geologist Graham Davidson supervised a prospecting and sampling program on the Pavey claims. In the "main gully", sample results correlated well with those obtained by Du Pont. Of the 10 samples taken, 6 recorded gold values between 0.1 and 1.44 oz ton; silver values were up to 12.6 oz/ton.

In 1983 Texaco Canada Ltd. staked the BEN 1-4 claims and performed geological, geophysical and geochemical surveys. Seventeen mineral occurrences produced gold values greater than or equal to 1000 ppb and/or silver values greater than or equal to 70 ppm. The mineralized veins and shear zones contain one or more of pyrite, arsenopyrite, galena, sphalerite, stibnite, chalcopyrite and siderite, galena, sphalerite, stibnite, chalcopyrite and siderite. Although most of the mineral occurrences were of limited size, Texaco's consultants concluded that there was potential for larger silver and gold deposits along or near a northwesterly trending fault which traverses the upland plateau passing through both the BEN and at the time GAUG claims.

# IV. Geology and Mineralization

The property is underlain by layered volcanic, sedimentary and metamorphic rocks extensively exposed on precipitous slopes overlooking Bennett Lake and on peaks and ridges surrounding the upland plateau. Intruding this sequence are granitic rocks of various ages and porphyry dykes of Late Cretaceous or Tertiary age.

The oldest rocks are the Palaeozoic and Proterozoic Boundary Ranges Metamorphics which consist of northwesterly trending fault bounded blocks of gneiss, schist, sediments, pyroclastics and minor carbonates. Altered pyroxenites, foliated gabbros and mafic flows are also mapped as part of the metamorphic succession. Locally, gneiss can be divided into: 1) mafic gneiss, composed of quartz, chlorite and amphibole; and 2) felsic gneiss, composed of quartz, feldspar and muscovite. All rocks of this age are metamorphosed to at least greenschist facies.

Triassic and Jurassic sedimentary and volcanic rocks occupy most of the remaining areas of the property. Pebble conglomerate of Palaeozoic to Upper Triassic age outcrops on the PAVEY #5 claims at the head of a small creek. The conglomerate contains chert and quartz pebbles in a black siltstone matrix.

The upper Triassic Stuhini Group occurs in the southeastern corner of the claim block and consists primarily of green pyroxene-feldspar porphyry tuffs and breccias, and variegated feldspar-phyric tuffs and lesser flows. The Stuhini Group volcanics lie in unconformable contact with the Lower Jurassic Laberge Group and

with Middle to Upper Jurassic volcanics. The Laberge Group consists of intermixed argillite, siltstone, greywacke and lesser The sediments are generally highly fractured and conglomerate. form vivid orange goassan zones when pyrite rich. The Middle to Upper Jurassic volcanics closely resemble volcanic rocks on Montana Mountain and in the Wheaton district which are considered They consist of variegated Cretaceous or Tertiary in age. pyroclastic lapilli tuffs and bladded feldspar porphyry flows of basaltic and andesitic composition. Basaltic flows weather a brownish green colour and contain up to 30% plagioclase phenocrysts. The tuffaceous units weather a dark brown colour and contain subangular clasts up to 1 cm in size.

At least three stages of granitic intrusive rocks ranging in composition from diorite to quartz monzonite intrude and underlie the layered rocks. Altered and deformed intrusives, leucogranite, and quartz diorite of Palaeozoic to Triassic age intrude sedimentary and metamorphic rocks in the western half of the claim block. Hornblende phenocrysts constitute up to 30% of the rock and maintain a northwesterly orientation. Minor pyrite, pyrrhotite and chalcopyrite are present in most samples.

The most extensive intrusive rocks in the area are the Upper Cretaceous Coast Intrusions. They outcrop as prominent smooth faced cliffs in the southwestern corner of the PAVEY #1 and #2 claims. The Coast Intrusions are medium to coarse grained hornblende and biotite granites which lie in sharp fault contact with metamorphic and sedimentary strata to the east.

A variety of dykes and sills occur throughout the claim area. They penetrate all rock units except the Coast Intrusives, where they were not observed. The most common dykes, range in composition from andesite to basalt and outcrop along the westerly facing slope above Bennett Lake. Typically they are less than 5 m wide, vary in colour from light green to dark brown and contain less than 10% fine phenocrysts. Two bodies of rhyolite porphyry occur in the main gully west of the upland plateau. The yellowish weathering rock contains feldspar and quartz eye phenocrysts that average 5 mm in size. The groundmass is very fine grained and siliceous. Pyrite and pyrrhotite comprise up to 5% of the rhyolite. Above the adit in the Pavey #2 claim several granitic porphyry dykes intrude quartz diorites.

Four types of mineralization containing gold, silver, copper, lead and zinc values are present on the PAVEY property. In order of significance they are:

- Arsenopyrite-quartz veins;
- Stibnite-arsenopyrite-galena-sphalerite-quartz veins;

- 3. Chalcopyrite-magnetite in a shear zone; and
- 4. Massive pyrrhotite boulders.

# V. Conclusions and Recommendations

Although the veins are generally less than 1 m in width, the abundance of mineralization indicates that the claim area has the potential of hosting a gold and silver deposit.

From first assessment of exploration results, it appears that localized anomalous zones may be related to later stage structural features which cut the main fault zones.

Two phases of exploration are recommended for the property. Phase I provides for construction of an access road, followed by auger drilling, backhoe trenching, prospecting and other geological work, at an estimated cost of \$150,000.00. Contingent on favourable results from Phase I, a Phase II program consisting mainly of diamond drilling is recommended at an estimated cost of \$175,000.00.

Reference is made to the "Preliminary Evaluation of the Pavey Property (revised)" prepared by J.E. Wallis, P.Eng., dated May 15, 1990, which is attached to and forms a part of this Prospectus.

### B. BEN PROPERTY

# I. <u>CONTRACTS</u>

Pursuant to an Option Agreement dated March 31, 1988, as amended, (the "Ben Agreement"), Texaco Canada Resources Ltd. (the "Optionor") granted the Issuer an option to acquire certain mineral claims located in northwestern British Columbia, situated adjacent to the Pavey Property, and more particularly described as follows (the "Ben Property"):

Claim Name	No. of <u>Acres</u>	Record <u>Number</u>	Mining <u>Division</u>	Expiry <u>Date</u>
Ben 1	926.6	1931	Atlin	July 4, 1994
Ben 2	926.6	1932	Atlin	July 4, 1994
Ben 3	556.0	1933	Atlin	November 24, 1990 <sup>1</sup>
Ben 4	370.7	1934	Atlin	July 4, 1994

Please refer to footnote 1 under "Pavey Property".

By virtue of the Ben Agreement, the Issuer has made, or must make, payments totalling \$95,000.00 to the Optionor as follows:

- (i) the sum of \$3,000.00 upon the execution of the Ben Agreement (paid);
- (ii) the sum of \$7,000.00 on or before December 31, 1988 (paid);
- (iii) the sum of \$2,000.00 on or before March 31, 1989 (paid);
  - (iv) the sum of \$3,000.00 on or before August 15, 1989 (paid);
  - (v) the sum of \$25,000.00 on or before March 15, 1990 (paid);
- (vi) the sum of \$15,000.00 on or before March 15, 1991;
- (vii) the sum of \$15,000.00 on March 15, 1992;
- (viii) the sum of \$25,000.00 on March 15, 1993.

### II. LOCATION AND ACCESS

The Ben Property is located adjacent to the Pavey Property. The reader should refer to the section of this Prospectus entitled "Pavey Property" for full details of location and access.

### III. <u>HISTORY</u>

Please refer to the section of this Prospectus entitled "Pavey Property".

### IV. GEOLOGY AND MINERALIZATION

Please refer to the section of this Prospectus entitled "Pavey Property".

### V. CONCLUSIONS AND RECOMMENDATIONS

Please refer to the section of this Prospectus entitled "Pavey Property".

For full details regarding the Ben Claims and the Issuer's plans in relation thereto, the reader should refer to the engineering report entitled "Preliminary Evaluation of the Pavey Property (revised)" dated May 15, 1990 prepared for the Issuer by J.E. Wallis, P.Eng., which is attached to and forms a part of this Prospectus.

### C. OTHER PROPERTIES

Until recently, the Issuer held an interest in certain other mineral properties as follows:

## Harjay Property

Pursuant to an option agreement dated December 16, 1987 and amended April 13, 1989 and again November 24, 1989, the Issuer acquired an option to purchase a 100% interest (subject to a 2% net smelter return) in 61 mineral claims known collectively as the "CT 1 to 17", the "WR 1 to 16" and the "Missy 1-28" claims, all located in the Whitehorse Mining District. The Issuer incurred exploration and development expenditures (including those incurred in connection with the "Uck and Stoney" properties referred to below) totalling \$70,422.00 prior to July 6, 1990 when the claims were dropped by the Issuer because it was felt that they lacked sufficient merit to justify further expenditures.

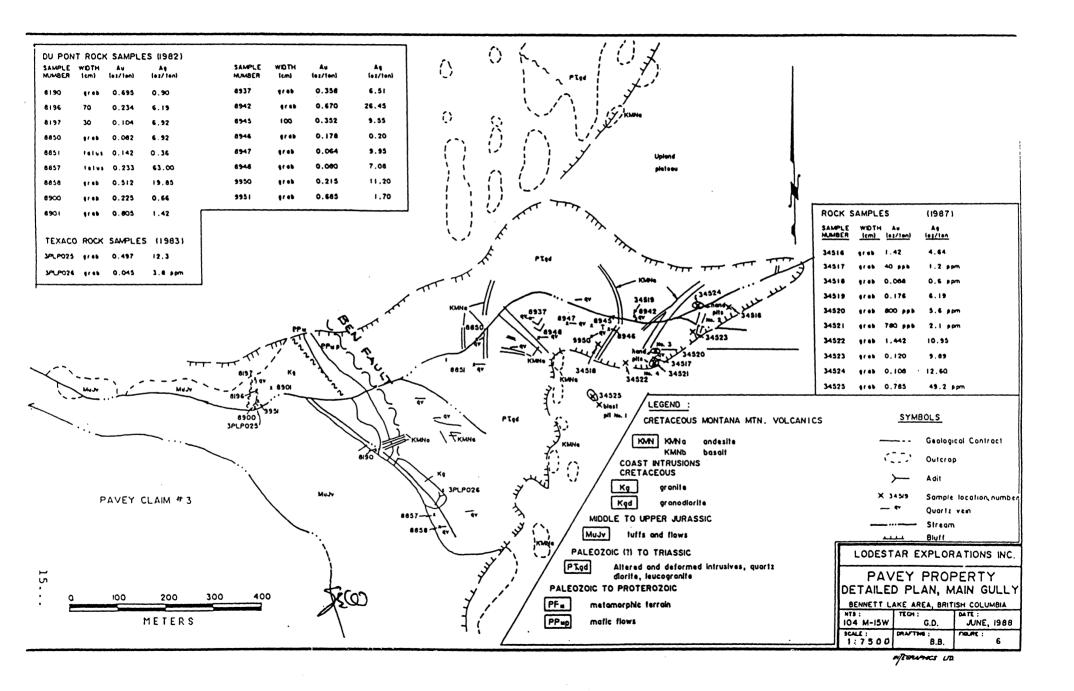
# Uck and Stoney Property

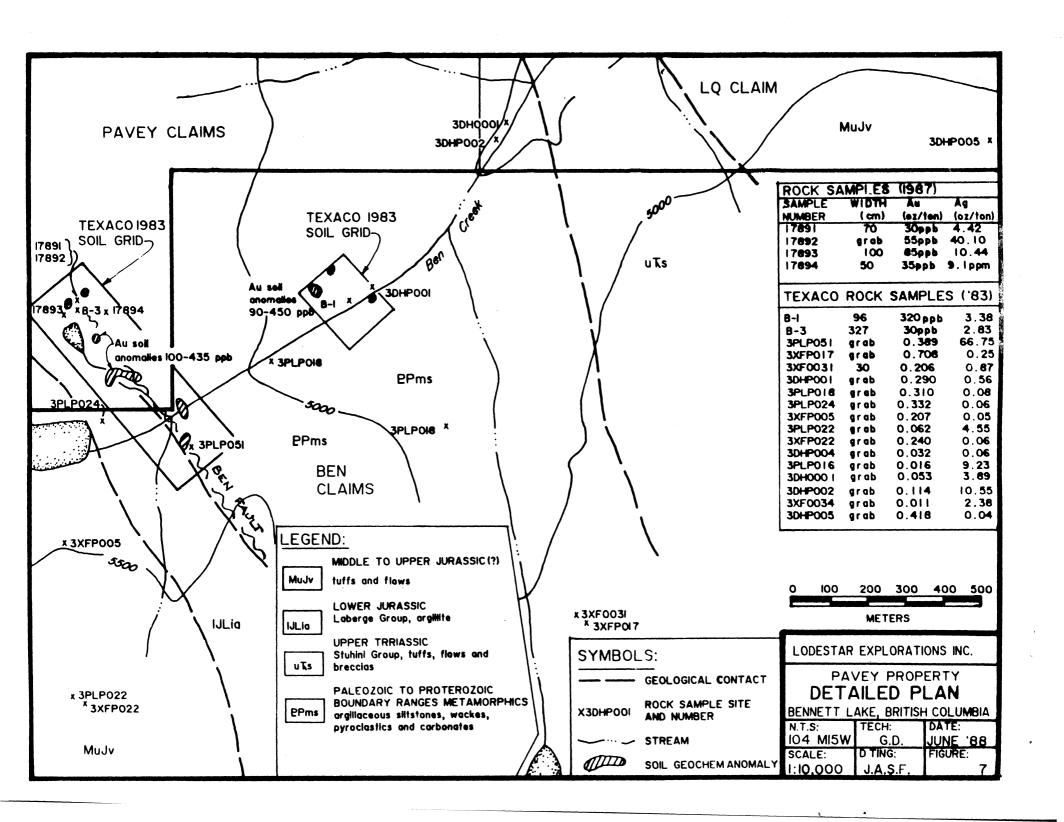
Pursuant to an option agreement dated March 10, 1989, the Issuer acquired an option to purchase a 100% interest (subject to a 2% net profits royalty) in 62 mineral claims known as the "Uck 1 to 18", the "Uck 31-42" and the "Stoney 1-32" claims located in the Whitehorse Mining District. The Issuer made exploration and development expenditures of \$70,422.00 (including those on the "Harjay" property above), however, it did not pay any cash consideration or issue any shares, and the claims were dropped on July 6, 1990 because they were felt to have insufficient merit to justify further expenditures.

### **PROMOTERS**

Brian Allan Luck of #19 - 4078, 4th Avenue, Whitehorse, Yukon Territory and Todd William Peever of M606 - 1600 Beach Avenue, Vancouver, B.C., are the promoters of the Issuer (the "Promoters") as defined in the <u>Securities Act</u> of British Columbia since they took the requisite initiatives in the organization of the Issuer.

The Promoters have acquired the following common shares in the capital of the Issuer:





APPENDIX "B"

# **PRELIMINARY EVALUATION**

OF THE

**PAVEY PROPERTY** 

BENNETT LAKE, B.C.

ATLIN, M.D.

NTS 104M 15W 59° 56' North 134° 43' West

For

LODESTAR EXPLORATIONS INC. 1560 - 701 West Georgia Street Vancouver, B.C. V7Y 1C6

Ву

J.E. Wallis, P.Eng.

708 - 1155 West Pender Street

Vancouver, B.C.

V6E 2P4

Revised
May 15, 1990

To

# PRELIMINARY EVALUATION

OF THE

**PAVEY PROPERTY** 

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Revised May 15, 1990

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## SUMMARY

The PAVEY property consists of 140 units located between Bennett and Tutshi Lakes in the Tagish Highlands of the Atlin Mining Division in northwestern British Columbia. The property covers gold and silver rich mineralization in shears and quarts veins related to several strong north and northwesterly trending faults. The claims are underlain by layered sedimentary, volcanic and metamorphic rocks intruded by granitic bodies and porphyry dykes.

Previous work by Du Pont of Canada and Texaco Canada Resources Ltd. located quartz-arsenopyrite and quartz-stibnite-arsenopyrite veins concentrated in the "main gully" and around the Ben Fault at the head of Ben Creek. The "main gully' is a steep sided gorge which descends from a plateau area down the westerly facing slope overlooking Bennett Lake. Along the rocky walls of this gorge mineralized veins occur over a 1,000 metre section. The Ben Fault is a northwesterly trending structure that cuts argillites and Boundary Range metamorphic rocks on the upland plateau; veins and a shear zones containing one or more of pyrite, arsenopyrite, galena, sphalerite, stibnite and chalcopyrite lie parallel and nearby the Ben Fault. Du Point and Texaco completed extensive rock sampling and soil geochemical surveys from 1982-1983.

In 1987 geologist Graham Davidson supervised a prospecting and sampling program on the PAVEY claims. In the "main gully" sample results correlated well with those obtained by Du Pont. Of the 9 grab samples and 1 chip sample taken in 1987 (Samples 34516 to 34525), 6 recorded gold values between 0.1 and 1.44 oz/ton; silver values were up to 12.6 oz/ton. No sampling was undertaken on the BEN claims as these claims were not under option to Lodestar until March, 1988. Earlier sampling by Texaco located seventeen mineral occurrences which produced gold values greater than or equal to 1.0 ppm and/or 70.0 ppm silver. Peak gold values are reported at 0.708 oz/ton and maximum silver values at 66.75 oz/ton.

At the south end of the PAVEY claims a 300 metre long adit, excavated in 1916-1917 remains open and in good condition. Apparently the drift was designed to intersect a ruby silver bearing ore body. Prospecting in 1987 located auriferous quartz veins above the adit returning values up to 0.433 oz/ton Au. However, no significant silver mineralization was found within or around the adit.

In 1988 a prospecting crew traced a .5-1 m wide quartz vein (LQ vein) over a 350 m strike length on the LQ and adjoining BEN claim. Two chip samples and four grab samples were taken from the vein. The vein contains up to 20% arsenopyrite, 5% galena, 5% sphalerite and less chalcopyrite. Gold values from the six samples range from .05 to 0.28 oz/ton and silver values from 2.0 to 11 oz/ton.

Major structural features, mineralization and alteration indicates that the property has excellent potential for hosting an epithermal gold/silver vein deposit similar to that discovered on the Skukum Gold property slightly to the northwest.

A two phase exploration program is recommended for the PAVEY property. Phase I at a proposed budget of \$150,000 consists of auger drilling and backhoe trenching, prospecting, geological work and road construction. Phase II consists mainly of diamond drilling and is proposed at a cost of \$175,000.

### INTRODUCTION

The PAVEY 1-6, BEN 1-4 and LQ Claims (140 units) cover gold and silver bearing, sulphide rich (Pb-Zn-As-Sb) quartz veins and shear zones located north of Paddy Pass and east of Bennett Lake in the Atlin Mining District of northwestern British Columbia. The property is accessible via the Klondike Highway which passes within 1 km of the eastern margin of the claim block at Tutshi Lake. The Klondike Highway links Skagway, Alaska at tidewater to Whitehorse, Yukon.

The PAVEY 1-6 and LQ Claims were staked in 1986-87 to cover ground previously held by Du Pont of Canada (Gaug Claims) which lapsed in 1986. The PAVEY and LQ Claims are owned by G. Harris and G. Davidson of Whitehorse; Lodestar Explorations Inc. holds an option to acquire a 100% interest in the claims. The BEN 1-4 Claims are held by Texaco Canada Ltd. and Lodestar can earn a 100% interest in these claims by fulfilling the terms of an option agreement.

Du Pont and Texaco completed work programs on their respective properties from 1982-1983 and reported numerous gold and silver bearing sulphide rich mineral occurrences associated with northwesterly trending faults and shears cutting volcanic and metamorphic rocks. Geochemical and geophysical surveys were also performed.

This report, prepared at the request of Todd Peever, President of Lodestar Explorations Inc., summarizes an exploration program conducted on the PAVEY 1-6 claims in July, 1987 and 1988 and reviews assessment reports on the Gaug claims and reports on the BEN Claims made available by Texaco Canada Ltd.

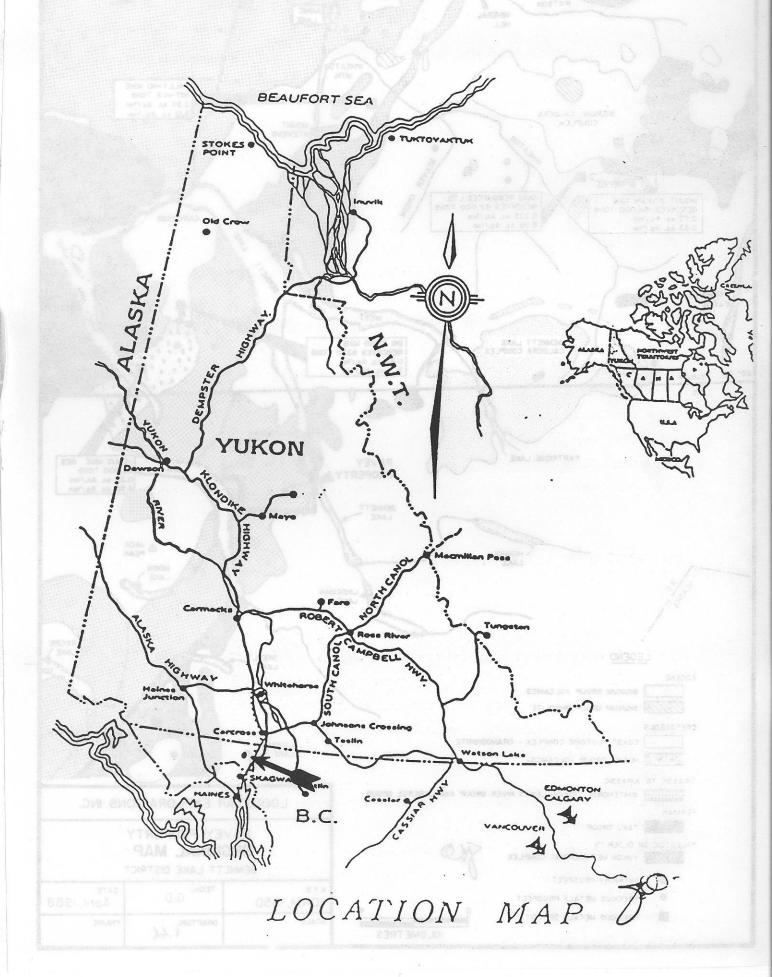
## LOCATION AND ACCESS

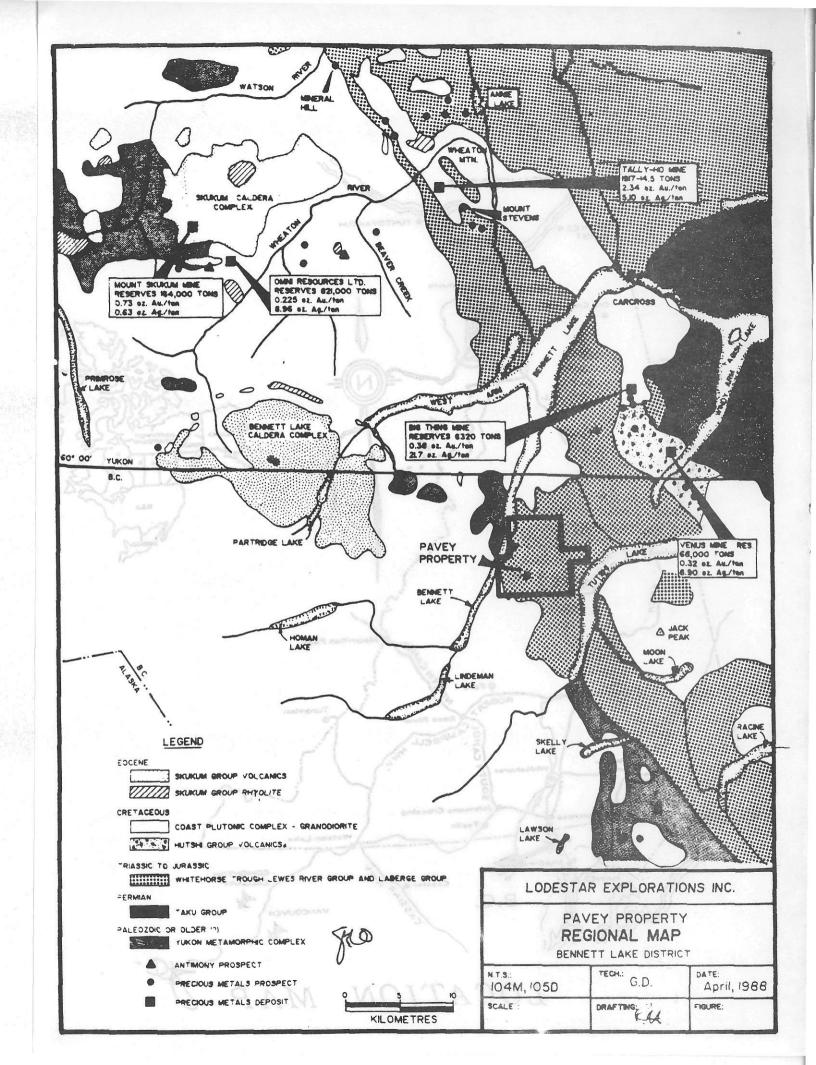
The PAVEY property is located in northwestern British Columbia, 28 km south of Carcross and 60 km south of Whitehorse on N.T.S. Map Sheet 104 M-15. Approximate geographical co-ordinates are 59 degrees 56' north and 134 degrees 43' west. The claims lie on the east side of Bennett Lake, with the White Pass and Yukon rail road passing through the western edge of the property. The Klondike Highway which links Skagway, Alaska to Whitehorse, Yukon is 1 km east of the claim block beside Tutshi Lake. A natural access route to the property is available via a northwesterly trending valley. An application to construct a road up this valley has been approved by the B.C. Ministry of Energy, Mines and Petroleum Resources. During the 1989 season, this road alignment was cleared and upgraded to provide 4-wheel drive access. Figures 1 and 2 show the property location.

### PHYSIOGRAPHY, CLIMATE AND VEGETATION

The PAVEY property is situated in the Tagish Highlands of the Coast Mountain Ranges of the northwestern cordillera. The claims lie at elevations between 660 and 2,200 metres, covering a steep westerly facing slope beside Bennett Lake and a broad upland interior featuring a till covered plateau surrounded by rocky ridges. Several small creeks occupy steep canyons which descend from the upland plateau down the slope overlooking Bennett Lake. In the upland area, tarns lie at the headwaters of Ben Creek which flows into Tutshi Lake.

Alpine areas in northwestern British Columbia have a northern interior climate modified by the Pacific Ocean. The property lies on the western side of the Coast Mountain Ranges where winter snow packs are 2-3 metres deep and annual precipitation averages 75 cm. Summers last from late June to late September with





Spruce forest and buckbrush are thick, up to the 1,400 metre elevation on the east shore of Bennett Lake. Elsewhere the property is generally above treeline and alpine grasses and moss are the dominant flora. Outcrop is extensive on the steep slopes and ridges surrounding the upland plateau.

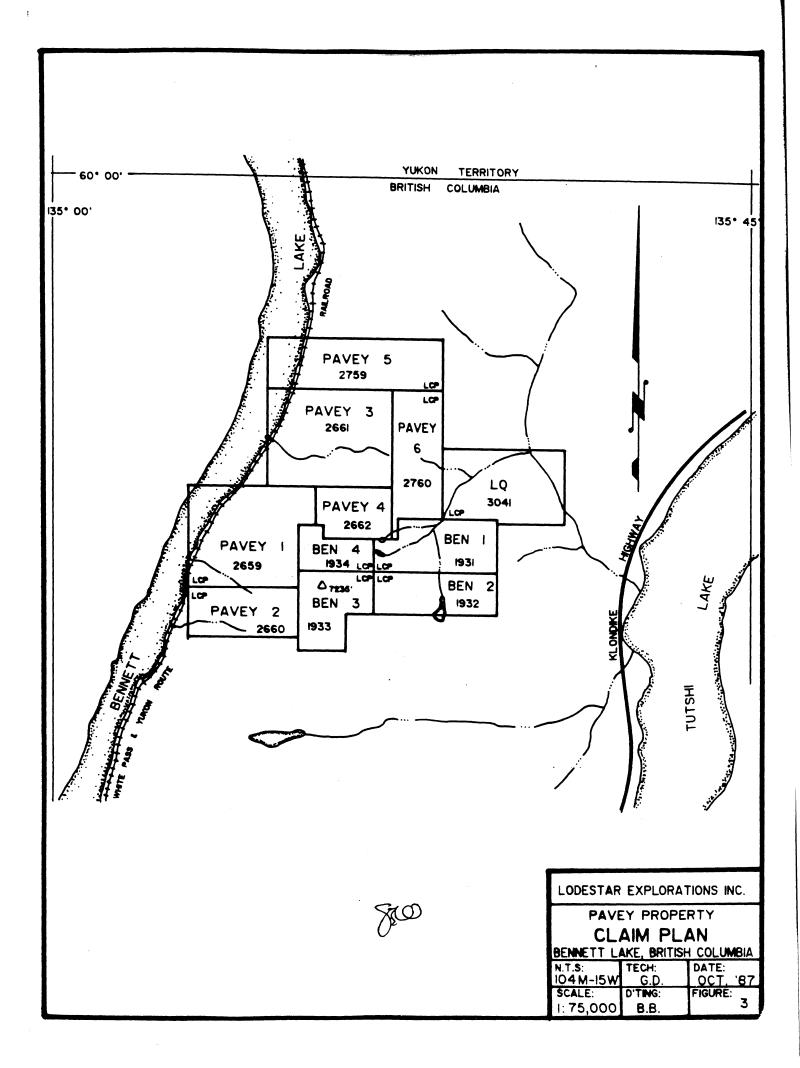
## **PROPERTY**

The PAVEY property consists of eleven claims registered with the district Gold Commissioner in Atlin, B.C., as listed in Table I. Figure 3 shows the claim plan.

TABLE I
Property Data

Claim Name	Number of Units	Record Number	Recording Date	Expiry Date
PAVEY 1	20	2659(8)	August 1, 1986	August 1, 1991
PAVEY 2 PAVEY 3	10 20	2660(8) 2661(8)	August 1, 1986 August 1, 1986	August 1, 1991 August 1, 1991
PAVEY 4 PAVEY 5	6 12	2662(8) 2759(11)	August 1, 1986 November 7, 198	August 1, 1991 6 November 7, 19 90
PAVEY 6	12	2760(11)	November 7, 198	6 November 7, 19 90
LQ	15	3041	July 24, 1987	July 24, 1991
BEN 1	15	1931(7)	July 4, 1983	July 4, 1994
BEN 2 BEN 3	15 9	1932(7) 1933(7)	July 4, 1983 July 4, 1983	July 4, 1994 July 4, 1994
BEN 4	6	1934(7)	July 4, 1983	July 4, 1994

G. Harris and G. Davidson of Whitehorse, Yukon are the registered owners of the PAVEY 1-6 and LQ claims, and Texaco Canada Ltd. is the registered owner of the BEN 1-4 claims. Lodestar Explorations Inc. has entered into separate agreements with Texaco and Harris-Davidson to acquire 100% interest in the respective claims.





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#### NTRUSIVE ROCKS

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PAVEY PROPERTY
REGIONAL GEOLOGY
BEMETT LAKE AREA, BRITISH COLUMBIA

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# **REGIONAL GEOLOGY**

The Bennett Lake district overlies the contact between two terrains: (1) the Intermontane Belt of the western Cordillera and (2) the younger volcanic and intrusive suite of the Coast Intrusions.

The Intermontane Belt features a complex assemblage of deformed volcanic and sedimentary rocks consisting of the Upper Triassic/Lower Jurassic Lewes River Group (Takla-Nicola), the Lower and Middle Jurassic Laberge Group (Stuhini Group) and Proterozoic metamorphic rocks.

Cretaceous granitic rocks of the Coast Intrusions are the most common in the district; typically, they consist of fresh quartz monzonite or quartz diorite. Pendants of Proterozoic gneiss, schist and limestone occur in the granitic intrusives.

A younger series of andesite, dacite and rhyolite flows, tuffs and agglomerates, mapped as the Late Cretaceous-Tertiary Mount Skukum Group (Mount Nansen Group - Sloko Group) intrude and overlie granitic rocks at Montana Mountain, Mount Skukum and Mount Macauley. Also, dykes of Tertiary and Eocene age intrude all rocks in the district.

The geology of the Bennett Lake district was mapped by R.L. Christie of the G.S.C. (published as Map No. 19-1957) and the Tutshi Lake Area was remapped by M. Mihalynuk and J. Rouse of the B.C. Geological Survey Branch, published as OPEN FILE MAP 1988-5. Figure 4 shows the property geology.

Structurally, the area features major faults, primarily along river and lake valleys, associated with movement in the Coast Intrusive complex and with early Tertiary volcanism at Mount Skukum, Mount Macauley and Montana Mountain. The Skukum Group volcanic rocks may be equivalent to the Sloko Group of northern B.C. and the Mount Nansen Group of central Yukon. Late stage features of Skukum Group volcanism include dacite, rhyolite and granitic dykes, emplaced in fractures and fault zones around the volcanic complexes, and quartz carbonate veining with significant precious and base metal mineralization.

### HISTORY AND PREVIOUS WORK

The Bennett Lake district was first explored by prospectors travelling along the major lakes and rivers in the early 1890's. The Klondike gold Rush brought a great influx of people to the area in 1898. Gold and silver bearing quartz veins were discovered around Bennett and Tagish Lakes, and in the Wheaton River drainage. High grade mining operations at the Engineer mine beside Taku Arm, Tagish Lake, and at the Venus and Big Thing mines on Montana Mountain produced gold and silver periodically during the early 1900's.

Near Pavey, B.C. on the White Pass and Yukon Rail Road, two claims were staked by Fred H. Storey around 1913. The SILVER QUEEN and RUBY SILVER claims were reported to overly high grade silver mineralization. The early workers build a 1.2 km tramway from the railroad at 660 m elevation up the mountain side to 1,400 m elevation. This adit is located on the PAVEY #2 claim and remains open and in good shape. No records of production exist and from the appearance of the adit, ore was not intersected. Three shorter adits are located in a steep gully 2.5 km to the north (PAVEY #3 claim) of the Ruby Silver adit. The history of these workings is unknown. They uncover mineralized quartz veins which occasionally contain visible gold.

From the mid-1920's to the late 1960's, little exploration of significance took place. By 1970, many of the old showings were restaked as an increase in the value of base and precious metals rekindled the interest of mining companies and prospectors. The Venus and Arctic mines operated on Montana Mountain between 1969 and 1971. The Venus mine was rehabilitated again from 1980 - 1981 and a new mill was installed at the southern end of Windy Arm, Tagish Lake.

In the 1980's the discovery and development of the Mount Skukum gold deposit in the Wheaton River area initiated a methodical staking rush in which much of the Wheaton River and Lake Bennett district has been staked. Gold production at Mount Skukum commenced in 1986 and a production decision on the nearby Omni Resources property is pending.

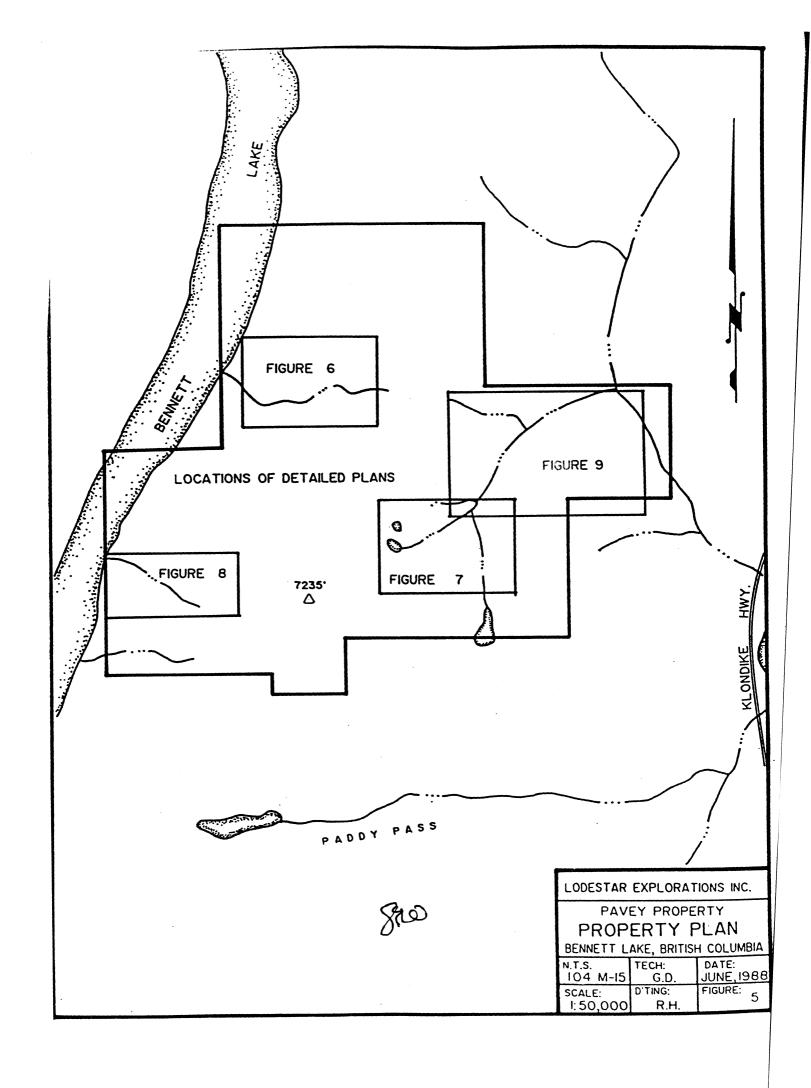
From 1981 - 1986 Du Pont of Canada held the GAUG claims over the area presently covered by the PAVEY 1-4 claims. During 1982 and 1983 Du Pont completed geological and geochemical surveys on the upland plateau and over a steep rocky gully which descends from the upland area to the east shore of Bennett Lake. They rediscovered several old adits in the gully. Of 33 rock samples collected by Du Pont, 15 contained gold values of .1 - .805 oz/ton and silver values up to 66 oz/ton. Du Pont also outlined strong precious and base metal geochemical anomalies in the gully and on the surrounding upland surface. Peak gold and silver values in soil were 1,150 ppb and 46 ppm respectively. Du Pont ceased exploration activities in the region after the 1983 season.

In 1983 Texaco Canada Ltd. staked the BEN 1-4 claims and performed geological, geophysical and geochemical surveys. Seventeen mineral occurrences produced gold values greater than or equal to 1000 ppb and/or silver values greater than or equal to 70 ppm. The mineralized veins and shear zones contain one or more of pyrite, arsenopyrite, galena, sphalerite, stibnite, chalcopyrite and rarely siderite. Although most of the mineral occurrences were of limited size, Texaco's consultants concluded that there was potential for larger silver and gold deposits along or near a northwesterly trending fault which traverses the upland plateau passing through both the BEN and at the time GAUG claims. Further details of Du Pont's and Texaco's exploration work are summarized in Appendix I.

### 1987 EXPLORATION PROGRAM

On July 10, 1987, G. Harrison and G. Davidson mobilized a four-man field crew onto the PAVEY property, locating camp just east of the PAVEY #6 claim. Crowsnest Helicopters, based in Whitehorse, provided air support.

A 1.75 km picket baseline trending north/south was established on the upland plateau with the BL 0+00 south picket located at the old legal cornerpost of Du Pont's GAUG 1 and 2 claims; 3.4 km of picket crosslines were extended primarily to the west of the baseline to tie in claim posts, old pits and quartz veins. The "main gully" where Du Pont located numerous mineralized veins and geochemical anomalies was also tied into the grid. The property plan is shown in Figure 5.



Blast and hand pits were excavated on quartz-sulphide veins in the "main gully" and beside a small tarn at the south end of the grid (PAVEY #4 claim). A Cobra gasoline drill was utilized for trenching.

Thirty rock samples were collected on prospecting and reconnaissance mapping traverses. The samples were first geochemically analyzed for 17 elements by Bondar-Clegg. Samples with high values in Au-Ag-Pb-Zn were then assayed. The Certificates of Analysis are presented in Appendix III. Samples values, locations and descriptions are summarized in Appendix II, and Figures 6, 7 and 8 show the sample sites. Du Pont and Texaco data is included on the maps and in the following sections.

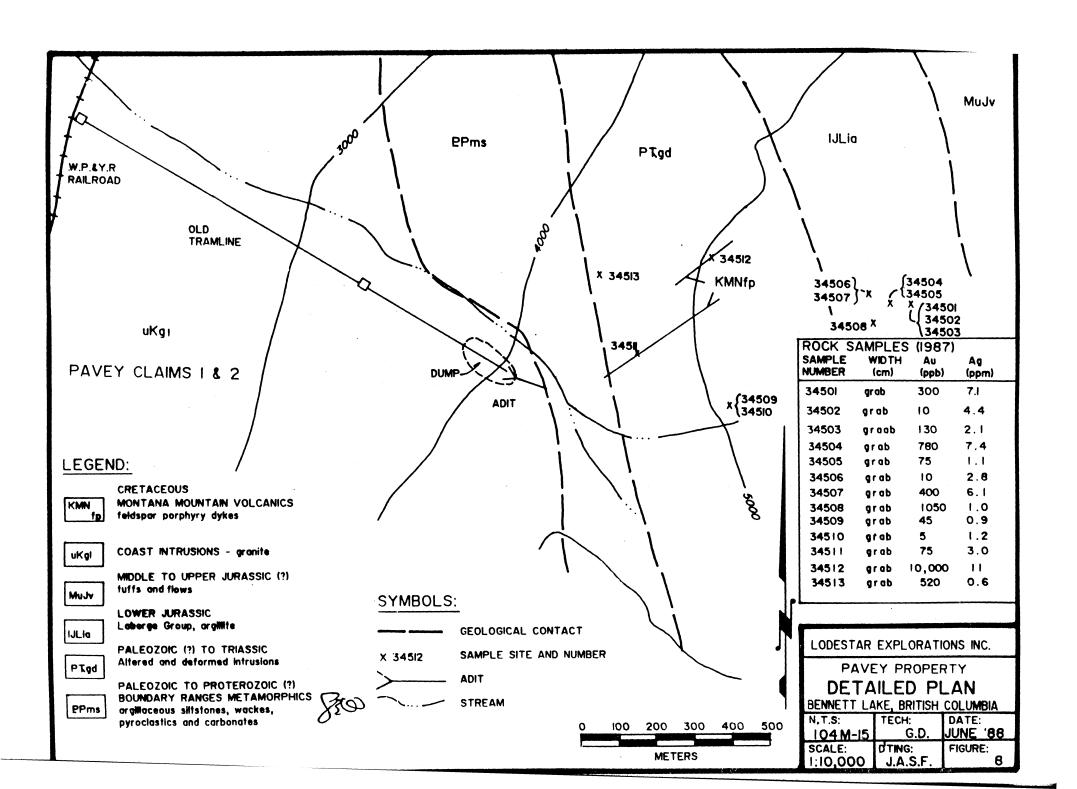
### 1988 EXPLORATION PROGRAM

On July 19, 1988 G. Davidson and a two-man Lodestar Explorations field crew flew onto the LQ claim from a base camp at Partridge Lake.

Reconnaissance mapping and prospecting traverses were performed by Lodestar Explorations primarily on the LQ claim. Twelve rock samples were collected and analysed for Au-Ag. The samples were analysed by Bondar-Clegg and MIN EN Laboratories Ltd. The lab reports are contained in Appendix III and sample values and descriptions are listed in Appendix II. Figure 9 shows the sample locations.

### 1989 PROGRAM

The 1989 work program was limited to construction of a 6 km 4-wheel drive access trail from Log Cabin on the Skagway Highway to Ben Creek. This trail provides excellent access to the Pavey property and will eliminate the necessity of costly helicopter support for future exploration programs. The trail was completed for an approximate cost of \$25,000.



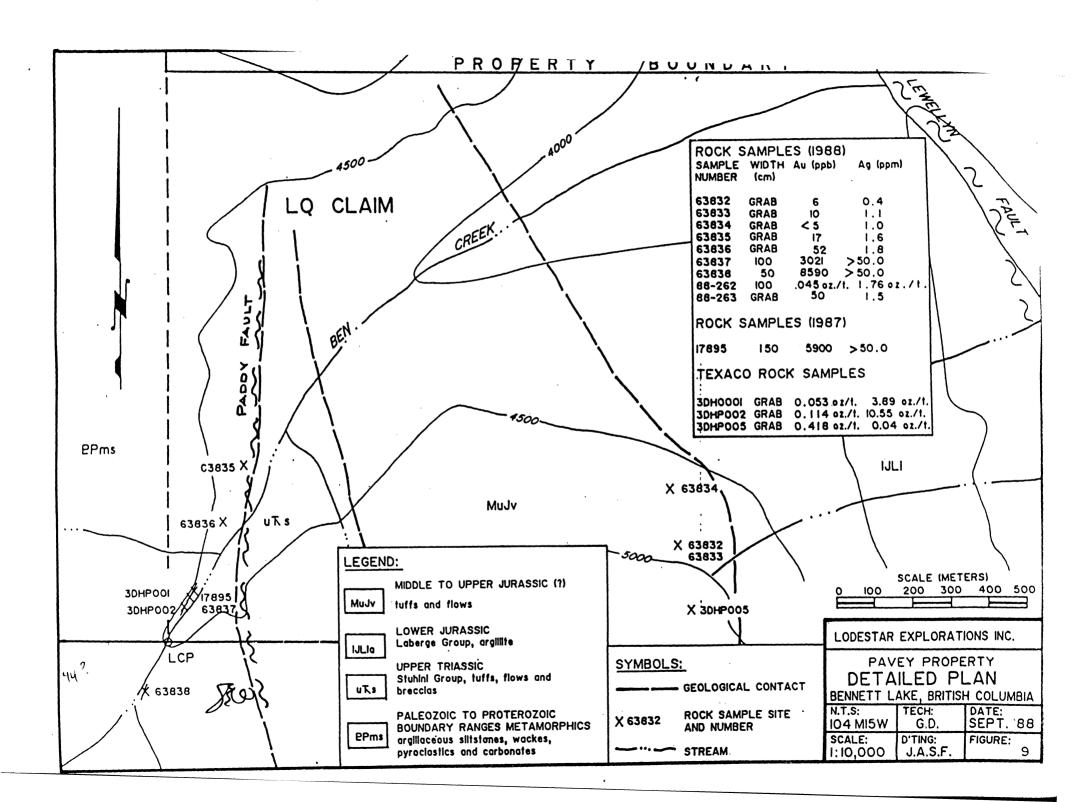
# **Property Geology**

The property is underlain by layered volcanic, sedimentary and metamorphic rocks extensively exposed on precipitous slopes overlooking Bennett Lake and on peaks and ridges surrounding the upland plateau. Intruding this sequence are granitic rocks of various ages and porphyry dykes of Late Cretaceous or Tertiary age. Mineralization is associated with Cretaceous and Tertiary volcanic activity.

The oldest rocks are the Paleozoic and Proterozoic Boundary Ranges Metamorphics which consist of northwesterly trending fault bounded blocks of gneiss, schist, sediments, pyroclastics and minor carbonates. Altered pyroxenites, foliated gabbros and mafic flows are also mapped as part of the metamorphic succession. Locally, gneiss can be divided into 1)mafic gneiss, composed of quartz, chlorite and amphibole; and 2) felsic gneiss, composed of quartz, feldspar and muscovite. All rocks of this age are metamorphosed to at least greenschist facies.

Triassic and Jurassic sedimentary and volcanic rocks occupy most of the remaining areas of the property. Pebble conglomerate of Paleozoic to Upper Triassic age outcrops on the PAVEY #5 claims at the head of a small creek. The conglomerate contains chert and quartz pebbles in a black siltstone matrix. Contacts between conglomerate and granitic rocks are highly silicified and contained up to 2% pyrite.

The upper Triassic Stuhini Group occurs in the southeastern corner of the claim block and consists primarily of green pyroxene-feldspar porphyry tuffs and breccias, and variegated feldspar-phyric tuffs and lesser flows. The Stuhini Group volcanics lie in unconformable contact with the Lower Jurassic Laberge Group and with Middle to Upper Jurassic volcanics. The Laberge Group consists of intermixed argillite, siltstone, greywacke and lesser conglomerate. The sediments are generally highly fractured and form vivid orange gossan zones when pyrite rich. The Middle to Upper Jurassic volcanics closely resemble volcanic rocks on Montana Mountain and in the Wheaton district which are considered Cretaceous or Tertiary in age. They consist of variegated pyroclastic lapilli tuffs and bladed feldspar porphyry flows of basaltic and andesitic composition. Basaltic flows weather a brownish green colour and contain up to 30% plagioclase phenocrysts. The tuffaceous units weather a dark brown colour and contain subangular clasts up to 1 cm in size.



At least three stages of granitic intrusive rocks ranging in composition from diorite to quartz monzonite intrude and underlie the layered rocks. Altered and deformed intrusives, leucogranite, and quartz diorite of Paleozoic to Triassic age intrude sedimentary and metamorphic rocks in the western half of the claim block. Hornblende phenocrysts constitute up to 30% of the rock and maintain a northwesterly orientation. Minor pyrite, pyrrhotite and chalcopyrite are present in most samples.

Cretaceous granite and granodiorite plugs have been mapped by the B.C. Geological Survey Branch on the western margin of the claim block. Of limited extent the more easterly felsic plug hosts numerous sulphide bearing quartz veins and fracture zones. This plug has been identified as a rhyolite porphyry by Du Pont.

The most extensive intrusive rocks in the area are the Upper Cretaceous Coast Intrusions. They outcrop as prominent smooth faced cliffs in the southwestern corner of the PAVEY #1 and 2 claims. The Coast Intrusions are medium to coarse grained hornblende and biotite granites which lie in sharp fault contact with metamorphic and sedimentary strata to the east.

A variety of dykes and sills occur throughout the claim area. They penetrate all rock units except the Coast Intrusives, where they were not observed. The dykes are probably contemporaneous with Tertiary volcanic dykes of the Bennett Lake caldera complex located 15 km west of the property, or with the Late Cretaceous Montana Mountain volcanics located 12 km to the northeast. The most common dykes, range in composition from andesite to basalt and outcrop along the westerly facing slope above Bennett Lake. Typically they are less than 5 m wide, vary in colour from light green to dark brown and contain less than 10% fine phenocrysts. Two bodies of rhyolite porphyry occur in the main gully west of the upland plateau. The yellowish weathering rock contains feldspar and quartz eye phenocrysts that average 5 mm in size. The groundmass is very fine grained and siliceous. Pyrite and pyrrhotite comprise up to 5% of the rhyolite. Above the adit in the Pavey #2 claim several granitic porphyry dykes intrude quartz diorites.

Structurally, two major northwesterly-trending faults run through the upland plateau. The western fault labelled the Ben Fault by Texaco was exposed in a blast trench. It consists of a 6 m wide fracture zone of gouge and argillite. The eastern fault called the Paddy Fault is the contact between metamorphosed sediments and altered intrusive rocks. A larger regional structure, the Llewellyn Fault, is a major northwesterly trending fault that passes through the eastern part of the LQ claim and most of the 104M 15 map sheet.

### **Mineralization**

Four types of mineralization containing gold, silver, copper, lead and zinc values are present on the PAVEY property. In order of significance they are:

- 1) Arsenopyrite-quartz veins
- 2) Stibnite-arsenopyrite-galena-sphalerite-quartz veins
- 3) Chalcopyrite-magnetite in a shear zone
- 4) Massive pyrrhotite boulders

Quartz veins containing bands of massive arsenopyrite and minor pyrite, sphalerite and galena occur in fractures and shear zones in granitic, porphyritic and argillaceous rocks. Six veins ranging in size from a few centimetres to 40 cm in thickness are located at approximately 1,000 m in elevation in the "main gully" (see Figure 6). A 25 m long adit follows one of these veins in a northeasterly direction. The adit exposes a quartz vein averaging 25 cm in width which pinches and swells along strike and dips to the west. The vein is surrounded by a 4 m wide bleached alteration zone in the host rhyolite porphyry. The alteration zone can be traced across outcrop for over 50 m from the portal. Gold and silver values of samples collected from the dump range up to 0.497 oz/ton and 12.3 oz/ton respectively. A 20 cm chip sample taken on surface approximately 40 m north of the adit recorded 0.234 oz/ton Au and 6.19 oz/ton Ag.

44

On the LQ claim a large quartz vein containing up to 20% arsenopyrite and 5% galena outcrops in quartz chlorite schist in a creek bed. The vein forms the west bank of BEN creek for 10 m, averaging 70 cm in width, striking 33°



1)

and dips 570 east. A grab sample of well mineralized vein material assayed 0.114 oz/ton Au and 10.55 oz/ton Ag while a chip sample over 150 cm recorded values of 0.084 oz/ton Au and 10.44 oz/ton Ag (see Figures 7 and 9).

Quartz float was traced upstream for 350 m to a second large quartz vein in outcrop. This vein also lies in the creek bed and is along strike from the main vein. It averages .5 m in width over a 10 m length; a .5 m chip sample assayed 0.27 oz/ton Au and greater than 50.0 ppm Ag.

44, 3, 43, 47 On the BEN claims 6 locations host veins and shear zones predominantly composed of quartz, arsenopyrite and less pyrite. The veins are generally less than one metre wide and the maximum values in rock samples collected by Texaco are 0.708 oz/ton Au and 66.7 oz/ton Ag.

7

Above the large adit on the PAVEY #1 claim (see Figure 8) a quartz-arsenopyrite vein occurs in a quartz eye porphyry dyke. A grab sample returned a gold assay of 0.433 oz/ton.

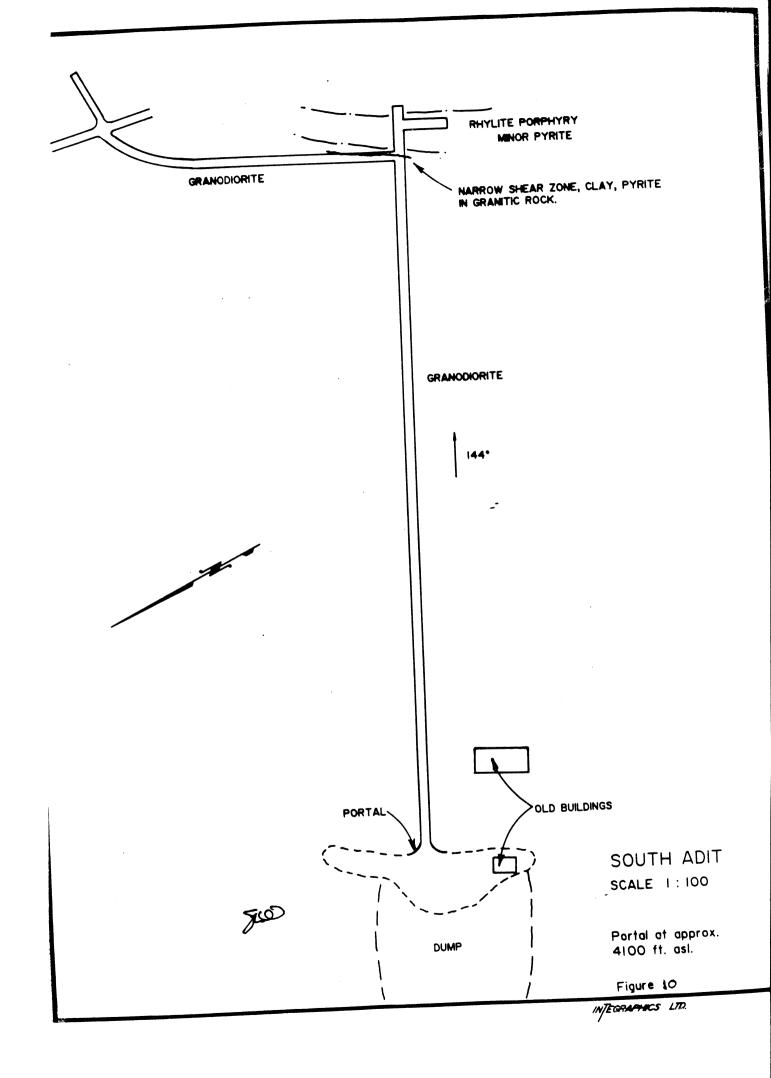
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The adit was examined and mapped at a scale of 1:100 - see Figure 10. The adit consists of a 180 m long drift and a 95 m crosscut with several short spurs. The adit was driven in 1915-1916 in a year-round operation to try and intersect a ruby silver ore zone. The workings cut fresh granodiorite for almost their entire length. One rhyolite porphyry dyke occurs at the end of the main drift and in a small spur. Apparently, no mineralization was intersected and the project was abandoned in 1916.

41,42?

2)

Quartz veins containing massive stibnite and arsenopyrite with some galena, sphalerite and chalcopyrite are exposed primarily in the "main gully" on the south side of the creek and in old trenches located beside a small tarn at the head of Ben Creek on the PAVEY #4 claim. The veins vary from a few centimetres up to 1 metre in width and are hosted by granodiorite and argillite. The vuggy quartz veins contain sulphide rich bands up to 10 cm thick which consist of coarse bladed to fine grained stibnite and fine grained arsenopyrite.



In the main gully stibnite rich veins are exposed in shears and fractures along 1,000 metres of outcrop and talus on the creek bank. Values from rock samples collected by Du Pont, Texaco and the writer are consistently over 0.1 oz/ton Au and 6 oz/ton Ag. Peak values in gold are 1.442 oz/ton and in silver 63 oz/ton.

Near the small tarn (Figure 7) two old blast pits were mucked out and sampled. Massive stibnite with 10% arsenopyrite, sphalerite and galena occurs in a fractured rhyolite porphyry. The sulphide zone is approximately 70 cm wide and appears to occupy a northwesterly trending shear zone in the felsic volcanics. Rock samples assayed up to 40 oz/ton Ag.

3) A zone of copper mineralization occurs on the west facing slope above Bennett Lake on the PAVEY #3 claim. This occurrence was not visited by the writer but is described in the following paragraphs from the Du Pont 1982 report on the GAUG property.

"The zone is a four metre wide sheared and altered section of granodiorite. This sheared rock is traceable on the surface over a length of 10 metres. The zone strikes east-southeast with a moderate dip to the northeast. An adit has been driven horizontally into the lower portion of this altered zone. The adit is in good shape and is approximately 1.0 x 1.5 metres in section and 15 metres long. It has been driven east into the hill then jogs to the north for seven metres.

Mineralization in the sheared rock is limited to a 30 cm wide section of massive to disseminated chalcopyrite and magnetite. Minor pyrite and bornite has also been noted in the rock. A strong malachite/azurite stain extends outward from the mineralization for a distance of one metre. Malachite staining covers the walls of the adit but only minor chalcopyrite was observed inside. Grab samples from inside and outside the adit varied from 3.3 to 9.5% copper. A sheared outcrop of malachite-stained granodiorite 450 metres below the adit ran 0.5% copper (grab sample). This suggests the mineralized shear zone may extend for several hundred metres across the property."

A summary of rock samples and their anomalous assay values for this copper zone is given in Appendix II.

Boulders of massive platey pyrrhotite and pyrrhotite-bearing amphibole skarns are situated in a talus slope on the BEN claims and along a contact between argillite and granitic rocks on the PAVEY #2 claims. Two talus samples from separate locations contained gold values of 0.31 oz/ton and 0.240 oz/ton however, 5 other pyrrhotite samples produced low gold values. The source of the boulder samples has not been located.

# GEOCHEMICAL AND GEOPHYSICAL RESULTS, 1982-1983

Soil geochemical surveys by Du Pont and Texaco produced strong precious and base metal anomalies in the "main gully" area and weak to moderate anomalies at the head of Ben Creek. The strongest gold values (up to 1150 ppb) were obtained by Du Pont on grid line 7+00W. A series of anomalous values over 300 metres on this line were interpreted to come from a large fault or shear zone which runs parallel to the line and cuts across the creek bed. Other spot gold anomalies are scattered over the upland area around the "main gully" and around Ben Creek.

Silver, antimony, arsenic, lead and zinc values correlate closely to gold values. The strongest anomalies are in the "main gully", where silver values reach 46.0 ppm. Other notable anomalies surround several of the old trenches on the BEN claims.

Anomalous copper values (up to 3830 ppm) occur over the chalcopyrite rich shear zone exposed by a short adit; north of the "main gully".

VLF and Magnetometer surveys performed by Texaco on two grids around the top of Ben Creek outlined the northwesterly trending Ben Fault. A prominent magnetic high on Grid 2 corresponds to a gossanous pyrrhotite-bearing zone in gneiss. Weaker magnetic anomalies on Grids 1 and 2, and three northwesterly trending VLF anomalies on Grid 2 are not exposed in outcrop. The cause of these anomalies is not readily apparent.

#### DISCUSSION

Exploration to date on the Pavey property has been successful in relocating some of the original showings on the claim area and has identified a number of large structural features which appear to control mineralization. These features in conjunction with the type of mineralization and alteration present suggests that the property has excellent potential for hosting an epithermal gold/silver vein deposit.

Examination of Dupont's and Texaco's soil geochemistry results in the on-strike area from these showings were somewhat dissapointing in that they showed relatively low values with a few anomalous highs. However, recent field work has shown that this upland area is covered with a thin to moderate veneer of glacial drift which effectively masks any underlying mineralization. As a result, surface soil geochemistry cannot be expected to be an effective exploration tool under these conditions. Auger sampling over a grid system with geochemical analysis of the soils on or near bedrock, followed by backhoe trenching, is the preferred method of sampling in this area.

Early mapping by Dupont and Texaco in the 1980's and by Davidson (1987) and Lodestar (1988) made numerous references to the alteration zones adjoining the vein systems. However, in recent communications with F. Marshall Smith, P.Eng. he suggests that these zones have a marked similarity both in mineralization and alteration with the Rainbow and Kuhn veins on the Skukum Gold property slightly to the northwest (Appendix IV). With this in mind, future mapping on the property should pay particular attention to detailed structural mapping and detailed mapping of these alteration zones.



#### **CONCLUSIONS**

Consistently high gold and silver values have been obtained from a number of quartz-arsenopyrite and quartz-stibnite-arsenopyrite veins located on the Pavey property. Mineralization and alteration of the wall rock adjoining these veins compares favourably with the surface appearance of the Rainbow and Kuhn veins on the nearby Skukum Gold property. The property has excellent potential of hosting an important epithermal gold/silver deposit.

There is no doubt that the Pavey property has considerable merit and warrants further detailed work.

#### RECOMMENDATIONS

A two-phase exploration program is recommended for the property. Phase 1 is designed to locate the on-strike extensions of the high grade veins. Contingent on favourable results from Phase 1, a Phase 2 program consisting of diamond drilling is anticipated.

#### Phase 1 details are as follows:

- A) The mineralized showings should be extended as far as possible by trenching. When trenching is complete the zones of mineralization and alteration should be mapped in detail and sampled.
- B) A line grid should be established on the upland plateau to cover the on-strike extension of known mineralized zones. Basic VLF-EM and magnetometer surveys over this grid may provide additional information on major structural features. An auger drilling program over this same grid will permit sampling of bedrock and the bedrock soils horizon. If the depth of overburden is not excessive in any anomalous area located, the area can be readily trenched with a hydraulic excavator.

# Phase 1 - Cost Estimates

1)	Detailed mapping and sampling Geologist, 60 days at \$400/day Assistant, 60 days at \$250/day	\$ 24,000 15,000
2)	Establish line grid, approx. 30 km at \$300/km	9,000
3)	Geophysical surveys, 30 km at \$300/km	9,000
4)	Auger drilling, 2,000 ft. at \$6.25/ft.	12,500
5)	Geochemical sampling, approx. 1,000 samples at \$7.50	7,500
6)	Trenching, 225 Caterpillar Excavator 100 hours at \$130/hr	13,000
7)	Camp and camp support	20,000
8)	Vehicles and miscellaneous rentals	10,000
9)	Mobilization and demobilization	9,000
10)	Final report	 7,000
	Sub-total Contingency	 136,000 14,000
	Total Phase 1	\$ 150,000
Phas	e 2 - Diamond Drilling	
Engi:	nond drilling, 2,500 ft. NQ size at \$50/ft. neering and geology p and camp support cles and miscellaneous rentals	\$ 125,000 12,500 10,000 5,000
	Sub-total Contingency	 152,500 22,500
	Total Phase 2	\$ 175,000

#### REFERENCES

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- Mihalynuk, M. and ROUSE, S. (1988): B.C. Ministry of Energy, Mines and Petroleum Resources, OPEN FILE MAP 1988-5.
- Scroeter, T.G. (1986): Bennett Project. B.C. Ministry of Energy, Mines and Petroleum Resources Paper 1986-1.
- Davidson, G.S. (1987): Exploration Report on the Pavey Property for Lodestar Explorations Inc.

#### CERTIFICATE OF QUALIFICATIONS

I, J.E. Wallis, of 708 - 1155 West Pender Street, British Columbia, do certify that:

- 1. I am a registered Professional Engineer in good standing in the Association of Professional Engineers of British Columbia.
- 2. I am a graduate of the Haileybury School of Mines 1958, the University of Alaska, B.Sc. 1965 and Queen's University, M.Sc. (Eng) 1967.
- 3. I have been practicing my profession for 28 years and as a Professional Engineer for the past 21 years.
- 4. I do not have nor have I ever had any interest direct, indirect or contingent, in the shares of Lodestar Explorations Inc. nor do I expect to receive any interest, either direct or indirect, in the properties or securities pertaining thereto.
- 5. I personally supervised a portion of the initial exploration on the Pavey property during July of 1987 for the property vendors.
- 6. I hereby grant my permission for Lodestar Explorations Inc. to use this report for filing with the Vancouver Stock Exchange as partial requirement of a Statement of Material Facts or for any legal purposes normal to the business of Lodestar Explorations Inc.

Dated at Vancouver, British Columbia, this 15th day of May, 1990

J.E. Wallis, P.Eng.

# APPENDIX I

# VALUES AND DESCRIPTIONS OF ROCK SAMPLES FROM ASSESSMENT REPORT #11,044 (GEOLOGICAL AND GEOCHEMICAL REPORT ON THE GAUG PROPERTY) AND FROM BEN CLAIM REPORT

DuPont and Texaco

Tables 1 & 2 - Dupont Data

Table 3 - Texaco

Arsenopyrite-Quartz Veins, Descriptions and Assay Results

TABLE 1

Sample #	Location	Description	Assay
9951A (grab)	Inside adit	Width 2 to 30 cm qtz aspy, py; strike approx - 030°	Au: 0.685 oz/t Ag: 1.70 oz/t As: 20.50 %
8900A (grab)	10 m west of adit	Exposed area 150 cm x 30 cm qtz, aspy, py, jarosite; orientation - 040°/60SE	Au: 0.255 oz/t Ag: 0.66 oz/t As: 9.25%
8901A (grab)	20 m east of adit	Width 10 to 40 cm exposed length 10 m; orientation 55°/45SE qtz, aspy, jarosite	Au: 0.805 oz/t Ag: 1.42 oz/t As: 17.6%
8196D (chip across 70 cm)	15 metres above adit	Width, average 70 cm aspy, qtz, jarosite; strike approx. 060°	Au: 0.234 oz/t Ag: 6.19 oz/t As: 4.75%
8197D (chip across 30 cm)	15 metres above 8196D	Width, average 30 cm aspy, qtz	Au: 0.104 oz/t Ag: 6.92 oz/t As: 5.55% Pb: 1.08%
8190D	South branch main creek EL: 1120 m	15 cm wide, qtz-aspy vein, exposed over 10 metres; orientation - 000/10E	Au: 0.695 oz/t Ag: 0.90 oz/t

Arsenopyrite - aspy
Pyrite - py
Quartz - qtz
Chalcopyrite - cpy
Sphalerite - ZnS
Stibnite - Sb

TABLE 2

# Stibnite-Arsenopyrite Quartz Veins, Descriptions and Assay Results

Sample #	Location	Description	Assay
8938A (grab)	North side creek, 1+76m EL: 1410 m	Shear zone in grano- diorite 3 cm thick vuggy qtz 10% combined py, cpy, sb	Au: 0.034 oz/t Ag: 1.57 oz/t Cu: 0.710% Sb: 0.28%
8941A (grab)	South side creek, 4+28m EL: 1425 m	3 cm wide, qtz-py-aspy -sb vein; striking 050°	Au: 0.069 oz/t Ag: 4.19 oz/t Pb: 3.53% Zn: 1.18%
8942A (grab)	North side creek, 4+28m EL: 1375 m	3 to 40? cm wide, qtz-sb-ZnS-py vein; orientation 074/80SE	Au: 0.670 oz/t Ag: 26.45 oz/t Pb: 6.44% Zn: 5.94% Cu: 0.110%
8943A (grab)	South side creek, 5+20m EL: 1355 m	Altered granodiorite wall rock of vein described under 8944A taken 10 cm from vein	Ag: 0.29 oz/t all others low
8944A (grab)	South side creek, 5+20m EL: 1355 m	40 cm wide, qtz(25%)aspy(50%)-cpy(10%)py(10%)- ZnS(minor); orientation 084/15S	Au: 0.052 oz/t Ag: 9.60 oz/t Pb: 0.44% Zn: 0.24%
9950A (grab)	South side creek, 5+10m EL: 1370 m	<pre>1 m wide, qtz-sb(60%)aspy (10%)-ZnS (10%)- cpy(5%) vein; orienta- tion 058/76 NW</pre>	Au: 0.215 oz/t Ag: 11.20 oz/t Pb: 2.36% Zn: 4.93%
8945A chip sample over lm	South side creek 5+15m EL: 1345 m	<pre>1 m wide, qtz-sb(10%) -aspy(25%)-cpy (5%)-py(10%) vein swarm orientation: 083/82 NW</pre>	Au: 0.352 oz/t Ag: 9.55 oz/t Zn: 0.32% Cu: 0.101%

TABLE 2 - (continued)

Sample #	Location	Description	
8946A (grab)	South side creek 4+90 m EL: 1355 m	10 cm wide	Au: 0.178 oz/t Ag: 0.20 oz/t
8947A (grab)	South side creek, 5+60m EL: 1330 m	10 cm wide, qtz-py(10: -cpy(10%)-aspy(5%) vein, traceable over 20 m; striking: 098°	%) Au: 0.064 oz/t Ag: 9.95 oz/t Pb: 0.33% Zn: 0.89%
8948A (grab)	South side creek, 6+22m EL: 1345 m	50-100 cm wide qtz-py- galena-aspy-sb stringer vein zone strike: 090°	
8937A (grab)	South side creek	<pre>l m wide, qtz-sb- aspy-ZnS vein; orientation - 090/45s</pre>	Au: 0.358 oz/t Ag: 6.51 oz/t Pb: 0.30% Zn: 0.41%
8851A (talus)	South side creek, 8+27m	Talus from inacces- sible qtz vein, ex- posed over approx. 10 metres qtz boxwork strong goethite stain, minor py	Au: 0.142 oz/t Ag: 0.37 oz/t Pb: 0.26%
8852A (grab)	North side creek, 8+27m EL: 1205 m	Silicified zone in granodiorite py and boxwork to 20%, jaro-site & goethite stain	Au: 0.016 o/t
8853A Chip over lm	South side creek, 9+23m EL: 1170 m	Altered zone in grano- diorite silicified and feldspar altered, jarositic & hematitic soil	Au: 0.016 oz/t Ag: 0.085 oz/t Pb: 046%
8854A Chip over lm	South side creek, 9+25m EL: 1180 m	Silicified zone in granodiorite 10 m above 8853A, jarosite stain, disseminated py	Ag: 0.10 oz/t

ABLE 2 - (continued)

	tion	Description	Assay
ample #  8856A chip over lm	Location  South branch main creek near adits EL: 1230 m	1 m wide, qtz-aspy- sb-py vein; orienta- tion - 090/55S	Au: 0.032 oz/t Ag: 0.12 oz/t
8857A talus grab	South branch main creek near adits	Talus sample of massive coarse bladed sb, 10 cm thick	Au: 0.233 oz/t Ag: 63.00 oz/t Cu: 0.955% Pb: 2.48% Zn: 1.39%
8858A (grab)	Above south branch main creek	10-100 cm wide, qtz-sb-aspy-py vein; striking approximate-ly 090°	Au: 0.512 oz/t Ag: 19.85 oz/t Cu: 0259% Pb: 0.90% Zn: 0.76%

TABLE III

## GOLD- AND/OR SILVER-BEARING LOCALES

	IDENTIFIER	SAMPLE TYPE	LOCATION	DESCRIPTION	GOLD ppm	SILVER ppm	OTHER METALS
	LOCALES WITHI	N BEN MIN	ERAL CLAIMS				
1.	TRENCHES B-1 and B-2	chip	on Ben Creek	A stratabound disseminated sulphide-bearing zone about 1 m in width is hosted by gneiss. Sulphides include galena, sphalerite, stibnite, arsenopyrite, pyrite and pyrrhotite. The sulphide-bearing zone parallels the layering in the gneiss and exists between a shear zone and a linear trend of irregularly shaped quartz boudins. The sulphide-bearing zone is traceable over a strike length of 20 m and is covered by till deposits at both ends.	TRENCH 0.32 across	B-1 108.1 0.96 m	
2.	TRENCH B-3	chip	on Grid 2 near a small pond	A siliceous felsic rock which contains disseminated galena and stibnite, and a massive vein of stibnite with galena, sphalerite and a minor amount of pyrite, is exposed in trench B-3. The trend and width of this zone is not known because barren rock was not exposed in the trench.	0.03 across	90.6 3.27 m	1.47 l 1.30 antimo

	identifier	SAMPLE TYPE	LOCATION	DESCRIPTION	GOLD	SILVER ppm	OTHER METALS
3.	3PLP051	grab	200 m south of camp	An old trench, which is largely collapsed and filled in, exposes a quartz vein. A dump of massive sulphide vein material exists beside the trench. The sulphides include galena, sphalerite, arsenopyrite and pyrite. Sample 3PLP051 contains abundant arsenopyrite. Sample 2PLM035, which was collected in 1982	12.45	2,136.0	
				from this site, is comprised of galena and sphalerite, and contains 0.94 ppm gold, 4,011.0 ppm silver, 36% lead and 10.6% zinc.			
4.	3XFP017	grab	300 m northeast of the small lake on BEN 2 mineral claim	This sample was collected from an outcrop where a narrow vein of massive arsenopyrite strikes about 040° and dips 50° southeast. Talus boulders indicate the vein is at least 10 m long.	22.66	8.0	
	3XF0031	chip	300 m northeast of the small lake on BEN 2 mineral claim	This sample was collected from an old trench that is about 25 m northwest of sample 3XFP017. In the trench is a quartz vein that ranges in width from 30 cm to 50 cm, and strikes 040° and dips 55° southeast. The vein is at least 15 m long. The sample is from an arsenopyrite-rich portion of the vein. Sample 3XF0032, which was collected from an arsenopyrite-poor portion of the vein, contains less than 1.00 ppm gold.	6.59 across	28.0 0.30 m	

	identifier	SAMPLE TYPE	LOCATION	DESCRIPTION	GOLD ppm	SILVER ppm	OTHER METAL
5.	3DHP001	grab	on Ben Creek 200 m northeast of trench B-1	Arsenopyrite and pyrite exist in boulders of quartz vein material 10 m north of the creek. Old overburden pits are present, but do not expose bed rock. On the south side of the creek a barren quartz vein 40 cm wide by at least 8 m long strikes 020° and dips 70° east.	9.29	18.0	
6.	3PLP018	grab	about 400 m southeast of trench B-1	Talus boulders of dark green amphibole skarn contain up to 10 volume per cent pyrrhotite and a trace of chalcopyrite. The source of the boulders was not discovered, but probably is upslope and to the west of the sample site in a talus-covered area.	9.91	2.7	
7.	3PLP024	grab	on the north shore of the lake at the toe of the glacier within BEN 4 mineral claim	A boulder of sugary quartz vein material with 20 volume per cent mafic wall rock fragments contains 20 volume per cent arsenopyrite. This boulder was also sampled in 1982; that sample contains 12.51 ppm gold.	10.63	1.8	
8.	3XFP005	grab	less than 100 m north of BEN mineral claims legal corner post	A narrow fracture zone, 2 cm in width, cuts fine grained greywacke and is associated with other fractures and a small quartz vein. The fracture zone has a primary cobalt mineral, erythrite stain, and minor amounts of pyrite.	6.62	1.7	0.37 cob

ID	ENTIFIER	SAMPLE TYPE	LOCATION	DESCRIPTION	GOLD ppm	SILVER ppm	OTHER METAL %
-	2 · - 4						
9. 3	PLP022	grab	at the toe of the glacier within BEN 2 and BEN 3	A boulder of quartz siderite vein material that contains arsenopyrite and galena. This boulder was also sampled in 1982; that sample	1.99	145.7	1.13
			mineral claims	contains 1.58 ppm gold, 373.7 ppm silver and 2.07% lead.			
3	XFP022	grab	at the toe of the glacier within BEN 2 and BEN 3 mineral claims	A boulder of massive pyrrhotite with a minor amount of carbonate material was collected from moraine. A sample, which was collected in 1982 from a similar boulder nearby,	7.69	1.9	
	e <sup>s</sup> g	·		contains 1.54 ppm gold.			
10.	30HP004	grab	300 m southeast of ME 3 mineral claim legal corner post	Arsenopyrite exists in a quartz vein which is less than 1 m wide, that is exposed in an old trench. Shears exist nearby.	1.02	1.8	
11.	3PLP016	grab	on Ben Creek 300 m east of camp	A rusty quartz vein, 10 cm in width, is poorly exposed in the creek bank. The vein strikes 015° and dips 72° west, and is hosted by fractured gneiss.	0.49	296.6	1.00

	IDENTIFIER	SAMPLE TYPE	LOCATION	DESCRIPTION	GOLD	SILVER ppm	OTHER METAL:
12.	3DHO001	chip	on Ben Creek near ME 3 mineral claim legal corner post	Chip sample across a quartz vein which contains galena, pyrite, sphalerite, chalcopyrite and arsenopyrite. Sulphides comprise 4 to 7 volume per cent of the quartz vein. The vein strikes 033° and dips 57° east and is exposed in the creek bed over a length of 7 m; it varies in width from 0.40 to 0.80 m. An old trench is present, as are several pits along strike which failed to expose the vein.	1.69 across	124.5 0.80 m	
	3DHP002	grab	50 m upstream of 3DHO001	A well mineralized grab sample from an old rock dump. Material in the dump probably came from a trench near 3DHO001. The sample comprises quartz vein material containing galena, pyrite, sphalerite and arsenopyrite.	3.66	337.7	2.26
13.	3XF0034	chip	300 m southeast of camp	This sample was collected from a 30 cm wide vein that is at least 20 m in length. The vein contains from 5 to 10 volume per cent arsenopyrite and 2 to 3 volume per cent pyrite, and strikes 015° and dips 80° west.	0.35 across	76.1 0.30 m	

	IDENTIFIER	SAMPLE TYPE	LOCATION	DESCRIPTION	GOLD ppm	SILVER ppm	OTHER METALS
	LOCALES EAST	r of ben mi	NERAL CLAIMS				
14	• 3DHP005	grab	just outside the northeast corner of BEN 1 mineral claim	Massive arsenopyrite exists in three parallel fracture zones which trend 058° and dip 84° southeast and are hosted by volcanic flows. The arsenopyrite-bearing portions of the fracture zones are up to 30 cm wide and 11 m long.	13.37	1.2	
15	• 3DHP007	grab	about 400 m east of BEN 1 mineral claim	Galena and chalcopyrite exist in a vuggy quartz vein which strikes 060° and dips vertically. The vein is about 30 cm wide and is covered by talus at one end and pinches out at the other end.	0.07	253.7	1.34 1
	LOCALES WITH	in Gaug Mi	NERAL CLAIMS				
16	. 3PLP025	grab	within GAUG 3 mineral claim	A sample of silicified, sheared granodiorite which contains 10 volume per cent arsenopyrite and 3 volume per cent pyrite was collected from muck at the entrance to an old adit.  The dimensions of the sulphide-bearing zone in the sheared granodiorite are unknown.	15.91	394.3	

II	DENTIFIER	SAMPLE TYPE	LOCATION	DESCRIPTION	GOLD	SILVER ppm	OTHER METALS
17.	3PLP026	grab	on GAUG 2 mineral claim	A fractured and silicified zone in granodiorite, less than 1 m in width, locally contains up to 20 volume per cent arsenopyrite and 10 volume per cent pyrite. The zone trends 109° and dips vertically. The sample is a well mineralized piece from the fractured zone.	1.43	3.8	·

# APPENDIX II

# ROCK SAMPLE VALUES, DESCRIPTIONS AND LOCATIONS

- A) Samples 17891 to 17895 and 34501 to 34525 taken by G. Davidson 1987
- B) Samples 63831 to 63838 and 88-262 to 88-265 taken by Lodestar Explorations in 1988

# ROCK SAMPLE VALUES, DESCRIPTIONS AND LOCATIONS

Sample Number	Sample Type	Location	Description	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	2n (ppm)	As (ppm)	Sb (ppm)	Ba (ppm)	Mn (ppm)
17891	70 cm chip	PAVEY #4 claim, sample from blast pit	Quartz veins in quartz porphyry, massive galena, stibnite, sphalerite and arseno- pyrite	30	>50	28	>10,000	14,804	>2,000	>20,000	282	987
17892	grab		Massive sphalerite and stibnite	55	>50	103	4,032	>20,000	67	>20,000	<15	8277
17893	100 cm chip	PAVEY #4 claim, second blast pit	Quart: vein and quart: porphyry, arseno- pyrite	85	29.6	43	5,868	4,807	> 2,000	293	776	337
17894	50 cm chip	PAVEY #4 claim, blast pit	Narrow quartz veins in cherty meta- sedimentary rock, pyrite, arsenopyrite	35	8.1	157	1,398	306	1,697	1,043	880	578
17895	150 cm chip	LQ claim	Massive quarts vein, arsenopyrite, galena	5,900	>50	614	8,582	3,207	>2,000	3,385	<15	44
34501	grab	PAVEY #2 claim, ridge above the main adit	Quarts wein in granitic rocks, up to 5% arsenopyrite and pyrite		7.1	15	293	131	>2,000	367	615	51
34502	grab		Granitic rock containing 10% pyrite	10	4.4	84	220	91	442	52	<15	627
34503	grab		Metasedimentary rock (chert;, 5% fine grained disseminated aulphides		2.1	36	156	67	>2,000	340	1,170	155
34504	grab	PAVEY #1 claim, 100 m west of previous sample	Subhedral quartz vein, bands of massive arsenopyrite	780	7.4	26	301	91	>2,000	521	<15	15
34505	grab		Silicified metasedimentary rocks, 10% disseminated pyrite and arsenopyrite	75	1.1	30	85	89	>2,000	119	185	505
34506	grab	PAVEY #1 claim, ridge top at 5,700' ASL	Massive platey pyrrhotite from quarts gouge zone in cherts	10	2.6	884	49	39	>2,000	18	<15	153
34507	grab		Quartz gouge vein, 10% arsenopyrite, pyrite	400	6.1	209	256	22	>2,000	668	<15	129
34508	grab	PAVEY #2 claim, ridge top at 5,600° ASL	Quartz vein talus, massive arsenopyrite	1,050	1.0	20	<5	17	>2,000	392	882	114
34509	grab	PAVEY #2 claim, 5,100' ASL	Granitic rock, hornfels, 2% pyrite, pyrrhotite, arsenopyrite	45	0.9	36	86	75	>2,000	25	464	651

Sample Number	Sample Type	Location	Description	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	2n (ppm)	As (ppm)	Sb (ppm)	Ba (ppm)	Mn (ppm)
34510	grab	PAVEY #2 claim, 5,100' ASL	Metasedimentary rock, dark, fine grained, cherty, disseminated pyrite, arsenopyrite, pyrrhotite		1.2	236	78	60	>2,000	25	722	872
34511	grab	PAVEY #2 claim, 4,700' ASL	Buff weathering feldspar porphyry dyke, 4 m wide, narrow vuggy quartz veins	75	3.0	2	106	50	> 2,000	40	21	32
34512	grab	PAVEY #1 claim, 5,100' ASL	Quarts vein, bands of arsenopyrite occur in quarts feldspar porphyry dyke 3 m wide		11	25	,	12	>2,000	398	60	27
34513	grab	PAVEY #1 claim, 4,400' ASL	Quartz vein, subhedral, 2% pyrite and arsenopyrite, minor chlorite		0.6	<b>(1</b> )	68	85	>2,000	34	3336	108
34514	grab	PAVEY #4 claim, 600 m west of tarn	Quartz-feldspar porphyry dyke containing minor araehopyrite	500	<0.5	6	75	8	>2,000	36	920	14
34515	grab		Quartz-feldspar porphyry dyke cut by narrow quartz veins containing arseno- pyrite and galena	860	22.4	63	174	1,227	1,004	20,000	<15	1,604
34516	grab	PAVEY #3, top of main gully	Banded quartz-limonite veins in felsic tuff, minor pyrite, arsenopyrite and galena	>10,000	>50	445	663	1,160	>2,000	>20,000	<15	252
34517	grab	PAVEY #3 claim, main gully, 4,500' ASL	Massive sulphide in quarts vein	40	1.2	40	56	46	302	205	324	1,101
34518	grab	PAVEY #3 claim, main gully, 4,400' ASL	Quartz vein containing arsenopyrite, pyrite, limonite	2,900	0.6	3	47	66	>2,000	531	246	450
34519	grab	•	Quartz-sulphide vein in porphyritic rock, vuggy, arsenopyrite, pyrite, sphalerite, galena	6,000	>50	299	8,569	19,883	>2,000	20,000	<15	468
34520	3 m chip	PAVEY #3 claim, main gully, 4,500' ASL	Hand pit in gossan zone, narrow sulphide bearing quartz veins in gossan	800	5.6	•	563	552	>2,000	114	654	2,959

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			(ppb)	(ppm)	(ppm)	(bbw)	(ppm)	(ppm)	(ppm)	(bbw)	(ppm
grab	PAVEY #3 claim, main gully, 4,500' ASL	Hand pit, sample of quartz, limonite with minor sulphides	780	2.1	2	110	286	>2,000	516	217	1,39
grab		Quartz-sulphide vein, stibnite	10,000	>50	594	1,010	1,569	662	20,000	<15	386
grab	•	Quartz-sulphide vein, stibnite, galena, arsenopyrite, pyrite	5,400	>50	204	10,000	1,556	>2,000	20,000	<15	38
grab	•	Quartz-sulphide vein, stibnite, galena, arsenopyrite	4,300	>50	465	10,000	5,538	>2,000	20,000	<15	94
grab	PAVEY #3 claim, upland surface	Blast pit, massive stibnite vein in volcanics	2,100	49.2	42	83	165	151	20,000	<15	306
grab	BEN #2 claim	Chert containing 20% pyrite, rusty red weathering zone	38	1.3							
grab	LQ Claim, 5000' ASL	Shear zone in andesite porphyry, limonite and calcite veining	6	0.4							
grab	• • • • • •	Porphyritic andesite containing pyrite blopbs and quartz eyes	10	1.1							
grab	LQ claim, 4,700 ASL	Pyritic shear zone in andesite porphyry	<b>&lt;5</b>	1.0	a a						
grab	LQ claim, beside Ben Creek, 4,300' ASL	Cherty limestone containing pyrite and arsenepyrite on fractures	17	1.6							
grab	LQ claim, beside Ben Creek, 4,400" ASL	Massive pyrrhotite vein (10 cm) at contac of dacitic dyke with argillite	t 52	1.8							
100	LQ claim, Ben Creek 4,500° ASL	Chip sample across quartz vein out- cropping in creek bed; 10% arsenopyrite, 5% galena, 5% sphalerite, less chalcopyrite	3021	>50.0	1800	>10,000	4,690				
	rab rab rab grab grab grab grab	main gully, 4,500' ASL  " " "  rab " "  rab " "  rab PAVEY #3 claim, upland surface  grab BEN #2 claim  Grab LQ Claim, 5000' ASL  grab LQ claim, beside Ben Creek, 4,300' ASL  grab LQ claim, beside Ben Creek, 4,400" ASL	main gully, 4,500' ASL  " Quartz-sulphide vein, stibnite  " Quartz-sulphide vein, stibnite, galena, arsenopyrite, pyrite  " Quartz-sulphide vein, stibnite, galena, arsenopyrite  " Quartz-sulphide vein, stibnite, galena, arsenopyrite  " Quartz-sulphide vein, stibnite, galena, arsenopyrite  Blast pit, massive stibnite vein in volcanics  Grab BEN \$2 claim Chert containing 20% pyrite, rusty red weathering zone  Shear zone in andesite porphyry, limonite and calcite veining  Porphyritic andesite containing pyrite blopbs and quartz eyes  Grab LQ claim, 4,700 ASL  Grab LQ claim, beside Ben Creek, 4,300' ASL  Grab LQ claim, beside Ben Creek, 4,400" ASL  LQ claim, beside Ben Creek, 4,400" ASL  Chip sample across quartz vein outcropping in creek bed; 10% arsenopyrite, 5% galena, 5% sphalerite, less	main gully, 4,500' ASL  Tab  " " Quartz-sulphide vein, stibnite   10,000  Trab  " " Quartz-sulphide vein, stibnite, galena, arsenopyrite, pyrite  Trab  " " Quartz-sulphide vein, stibnite, galena, arsenopyrite   2,100  Trab  PAVEY #3 claim, upland surface  Grab  BEN #2 claim  Chert containing 20% pyrite, rusty red weathering zone  BEN #2 claim  Chert containing 20% pyrite, rusty red weathering zone  Shear zone in andesite porphyry, limonite and calcite veining  Forphyritic andesite containing pyrite blopbs and quartz eyes  To Porphyritic shear zone in andesite porphyry  ASL  Grab  LQ claim, 4,700  ASL  Grab  LQ claim, beside Ben Creek, 4,300' ASL  Grab  LQ claim, beside Ben Creek, 4,500' ASL  To Creek 4,500' ASL  Chip sample across quartz vein outcropping in creek bad; 10% arsenopyrite, 5% galena, 5% sphalerite, less	main gully, 4,500' ASL  Tab  " " Quartz-sulphide vein, stibnite 10,000 >50  Tab  " " Quartz-sulphide vein, stibnite, galena, arsenopyrite, pyrite  Tab  " " Quartz-sulphide vein, stibnite, galena, arsenopyrite  Tab  " " Quartz-sulphide vein, stibnite, galena, arsenopyrite  Tab  PAVEY #3 claim, Blast pit, massive stibnite vein in upland surface volcanics  BEN #2 claim  Chert containing 20% pyrite, rusty red weathering zone  BEN #2 claim  Chert containing 20% pyrite, rusty red weathering zone  Tab  LQ Claim, 5000' ASL  Porphyritic andesite porphyry, limonite and calcite veining  " " Porphyritic andesite containing pyrite blopbs and quartz eyes 10 1.1  Grab  LQ claim, 4,700 ASL  Tab  LQ claim, beside Ben Creek, 4,300' ASL  Tab  LQ claim, beside Ben Creek, 4,400" ASL  Tab  Cherty limestone containing pyrite and arsenepyrite on fractures 17 1.6  Tab  Cherty limestone containing pyrite and arsenepyrite on fractures 17 1.6  Cherty limestone containing pyrite and arsenepyrite on fractures 17 1.6  LQ claim, beside Ben Creek, 4,400" ASL  Cherty limestone containing pyrite and arsenepyrite on fractures 17 1.6  LQ claim, beside Ben Creek, 4,500' ASL  Cherty limestone containing pyrite and arsenepyrite on fractures 17 1.6  Cherty limestone containing pyrite and arsenepyrite on fractures 17 1.6  Cherty limestone containing pyrite and arsenepyrite on fractures 17 1.6  Cherty limestone containing pyrite and arsenepyrite on fractures 18 1.8  Cherty limestone containing pyrite and arsenepyrite of dacitic dyke with argillite 18 1.8  Cherty limestone containing pyrite and arsenepyrite, 52 2 3.8  Cherty limestone containing pyrite and arsenepyrite of dacitic dyke with argillite 18 2.8  Cherty limestone containing pyrite and arsenepyrite, 52 3.8  Cherty limestone containing pyrite and arsenepyrite 3.8  Cherty limestone containing pyrite and arsenepyrite 3.8  Cherty limestone containing pyrite 3.8  Cherty limestone containing pyrite 3.8  Cherty limestone containing pyrite 3.8  Cherty limestone containing 4.3  Cherty limestone containi	main gully, 4,500' ASL  Tab  " " Quartz-sulphide vein, stibnite	main gully, 4,500' ASL  Tab  " " Quartz-sulphide vein, stibnite   10,000   >50   594   1,010   Tab  " " Quartz-sulphide vein, stibnite, galena, arsenopyrite, pyrite   Tab  " " Quartz-sulphide vein, stibnite, galena, arsenopyrite   Tab  " " Quartz-sulphide vein, stibnite, galena, arsenopyrite, arsenopy	main gully, 4,500' ASL  " Quartz-sulphide vein, stibnite	main qully, 4,500' ASL   Quartz-sulphide vein, stibnite   10,000   550   594   1,010   1,569   662	main qully, 4,500' ASL   with minor sulphides	main qully,



Geochemical Lab Report

PORT: V88-05627.0 PAGE 1 PROJECT: NONE GIVEN SAMPLE EI EMFNT Αu Ag Cu РЬ Zn UNITS FPN PPB PPM PPM NUMBER PPH

R2 63831 R2 63832 R2 63833 R2 63834 R2 63835	38 1.3 6 0.4 10 1.1 <5 1.0 17 1.6	
R2 63836 R2 63837 R2 63838 R2 63839 R2 638411	52 1.8 4°.  3021 >50.07 18111 >100110 8590 >50.0 25110 >101110 33 4.3 12 1.3	4690 - \$143/Ton L.Q. YEIN

Humber Clerk & Company Lid

130 Pemberion Avc. Nurth Vancouver, B.C. Canada V7P 2RS Phone: (604) 985-0681 Telex: 04-352/67



Geochemical Lab Report

•	REPORT: 127-	5560						Pf	ROJECT: PAVEY	PAGE 1	8
	SAMPLE	ELEMENT	As	И	Ва	Se	Sb	Cr			· · · · · · · · · · · · · · · · · · ·
	NUMBER	UNITS	FFM	PPM	PPH		Pft	PPN		• • • • • • • • • • • • • • • • • • • •	
	R2 17891		>2000	<10	282	9	>20000	56			
	R2 17892		67	96	<15	20	>20000	40			
	R2 17893		>2000	<10	776	<1	293	70			
	R2 17894		1697	<10	880	1	1043	58			
	R2 17895		>2000	<10	<15	10	3385	247			
	R2 34501		>2000	<10	615	6	367	170			
	R2 34502		442	<10	<15	5	52	75			
	R2-34503		>2000	<10	1170	5	340	94			
	R2 34504		>2000	<10	<15	13	521	361	•		
	R2 34505		>2000	<10	185	1	119	58			-
	R2 34506		>2000	<10	<15	6	18	48			***************************************
	R2 34507		>2000	<10	<15	6	668	432			
-	R2 34508		>2000	<10	882	5	392	69			
	R2 34509		>2000	<10	464	<1	25	119			
	R2 34510		>2000	<10	722	1	25	51	,		
	R2 34511		>2000	<10	21	1	40	159			
	R2 34512	•	>2000	<10	60	6	398	250			
خ زه ده و	CR2534513	grandels in the	>2000	<10	3336	∂-~ya3 •	34	~~119 <b>~</b>	and the second of the second o		
	R2 34514		>2000	<10	920	1	36	115			
	R2 34515		1004	<10	<15	1	>20000	77 .			
	R2 34516 .		>2000	<10	<15	<1	>20000	8		<u> </u>	
	R2 34517		302	<10	324	1	205	241			
	R2 34518		>2000	<10	- 246	1	531	253			
	R2 34519	5.	>2000	<10	<15	<1	>20000	101			
	R2 34520		>2000	<10	654	<1	114	108			
	R2 34521		>2000	<10	217	. 3	516	340	• •		
	R2 34522	•	662	<10	<15	<1	>20000	<2			
	R2 34523		>2000	<10	<15	2	>20000	141			
	R2 34524		>2000	<10	<15	1	>20000	96			
	R2 34525		151	<10	<15	<1	>20000	<2			

Sample No.	Sample Type	Location	Description	Au (ppb)	Ag (ppm)	Pb (ppm)	Zr (ppn
63838	50	BEN #1 claim, Ben Creek, 4,600' ASL	Chip sample across quartz vein outcropping in creek bed; 15% arsenopyrite, 5% galena, 5% sphalerite, less chalcopyrite	8,590	>50.0	10,000	6,58
88-262	60	LQ claim	white quartz vein with 10% sulphides	1,540	60.2		
88-263	20	PAVEY-main gully	quartz vein, open boxwork	100	1.2		
88-264	40	PAVEY-main gully	quartz vein with 10% pyrite and arsenopyrite bands	3,700	8.0		
88-265	40	PAVEY-main gully	quartz vein above the portal with 10% arsenopyrit	e 7,280	960.0		
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# APPENDIX III

**CERTIFICATES OF ANALYSIS** 



Geochemical Lab Report

SH	FORT: 13	77-5560						<b>p</b>	ROJECT:	PAVEY	F	'AGE 1A	
	MPLE MBER	ELEMENT UNITS	Au PPB	Cu PPM	Pb PPN	Zn PP <b>ri</b>	Mo PPM	Co PPM	Ni PPM	fin PPfi	Ag PPti	Bi PPM	T I PPM
R2	17891		30	28	>10000	14804	8	3	6	987	>50.0	5	1
R2	17892		55	103	4032	>20000	20	6	9	8277	>50.0	16	2
R2	17893		<b>8</b> 5	43	5868	4807	2	i	3	337	29.6	2	<1
R2	17894		35	157	1398	306	3	17	19	578	8.1	<2	2
R2	17895		5900	614	8582	3207	2	30	10	44	>50.0	508	<1
R2	34501		300	15	293	131	4	6	14	51	7.1	6	.<1
	34502		. 10	· 84	220	91	4	5	21	627		. 2	, <b>2</b>
	34503	•	130	36		67	14	30	33	155		<2	~ . ` <b>∢1</b>
	34504	• • • •	780	26	301	91	4	2	22				<1
R2	34505		75	30	85	89	6	2	9	505	1.1	<2	3
R2	34506		10	884	49	39	ু ব	<1		153		<2	<b>d</b>
	34507	•	400	209	256	22	. 3	- 6		🤞 i 129	6.1		<1
	34508		1050	20	<5	17	5	6		, 114	1.0	2	<b>1</b> 41
	34509		45	36	86	75	4	20		651	0.9	<2	<b>3</b>
R2	34510		5	236	78	60	4	11 -	10	<b>672</b>	1.2	<2	<u> </u>
	34511		75	2	106	50	1	1	6	32		<2	1
	34512		>10000	11	25	9	12	3	5	27		10	. <1
		wednight.					_				£\$₹₹₹0.6%		
	34514		500	6	75	- 18 -					<0.5		1
R2	34515	· · · · · · · · · · · · · · · · · · ·	360	63	174	1227	1	2 -	6	1604	22.4	<2	<u> </u>
R2	34516		>10000	445	663	1160	1	7	12	252	>50.0	<2	<1
	34517		40	40	- 56	. 46	3	5	12	1101	1.2	<2	<1
	34518		2900	3	47	66	1	6	8	450	0.6	<2	
	34519		6000	299	8569	19883	4	5	11	468	>50.0	<2	<b>(1</b>
R2	34520	**************************************	800	8	563	552	1	. 7	9	2959	5.6	<2	<1
	34521		780	2	110	286	1	4	10	1399	2.1	<2	<1
	34522		>10000	594	1010	1569	1	7	10	386	>50.0	<2	<1
	34523		5400	204	>10000	1556	4	2	9	38	>50.0	<2	<1
	34524		4300	485	>10000	5538	4	5	15	94	>50.0	<2	<1
R2	34525		2100	42	83	165	1	3	6	306	49.2	<2	<1



# LABORATORIES LTD.

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33 EAST IROQUOIS ROAD P.O. BOX 867 TIMMINS, ONTARIO CANADA P4N 7G7 TELEPHONE: (705) 264-9996

### <u>Certificate of ASSAY</u>

apany: TOTAL ERICKSON RESOURCES LTD.

.ject:SKUKUM RECCE
.ention:M.FEKETE

File:8-1025/P1 Date:JULY 23/88

Type: ROCK ASSAY

<u>hereby certify</u> the following results for samples submitted.

nple iber	AG G/TONNE		AU G/TONNE	AU OZ/TON	
-262 -263 -264 -265	60.2 1.2 8.0 960.0	1.76 0.04 0.23 28.00	1.54 .10 3.70 7.28	0.045 0.003 0.108 0.212	
***************************************					
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Certified by\_

MIN-EN CABORATORIES LTD.

# APPENDIX IV

JANUARY 17, 1990 CORRESPONDENCE

F. MARSHALL SMITH, P.ENG.

# F. Marshall Smith, P.Eng.

505-744 West Hastings Street, Vancouver, B.C. Canada V6C 1A5 Phone: (604) 684-2361 Fax: (604) 684-1373

17 01 1990

Mr. Todd Peever
Lodestar Explorations Inc.
1560-701 West Georgia Street
PO Box 10106
Vancouver, BC

RE: Pavey property, northern BC, assessments and recommendations

I examined the PAVEY Group of claims in the Atlin Mining Division, B.C. on 15 08 1987 and I have reviewed the recent reports by G.S. Davidson, P.Geol.

The property has considerable merit, and potential of developing an epithermal gold/silver vein deposit similar to the Rainbow and Kuhn veins on the Omni property to the northwest. The northern showings relocated by Du Pont of Canada Exploration on PAVEY 3,4, and 6 claims should be one of the principal area of interest for further work. The discoveries on the LQ claims on the eastern portion of the property are particularly important. I was not able to locate any significant mineralization on the southern portion at the old Silver Queen and Ruby Silver adit.

It is clear that the work by Du Pont in 1982 has extended the length and the width of the area of interest that the previous work (the short adits) has explored. The problem with this work by Du Pont is that, on the flat area above the adits in the perched hanging valley, geochemistry will not be effective in locating the extensions of the known mineralization. Thus the low geochemical anomalies and the scattered nature of the anomalies, on the flats, does not mean the veins terminate at the lip of the slope on the west but does show the interference of the glacial drift and the kame terraces that cover this change of slope.

The optimum method of exploration for further extensions and location of significant widths of vein/faults is to trench the flat plateau portion (strike extension) of the veins known on the steep west face, the veins on the LQ claims and the veins located near the tarn in the central portion of the claims.

Samples of quartz carrying heavy sulfides should be considered to be the top or strike extension of significant gold bearing portions of the expected shoots. This feature is well defined at the Omni property to the northwest, where the barren top of major gold veins were recognized by the wallrock alteration. As the veins were drilled to depth first the sulfide content (sphalerite, galena, chalcopyrite with arsenopyrite or stibnite) increased. The quartz in this sort of filling consists of white to grey-white single stage filling. Most of the quartz located on the Pavey claims appears to be similar to this sort of filling. The weak and spotty gold values in this material was accompanied by high silver values.

As the veins were penetrated at deeper levels, on the Omni property, the quartz changed to finer grained and multiple stages of filling were recognized. The sulfide content remained high but the principal sulfide is pyrite. The gold values climbed rapidly in this material with depth and the silver to gold ratio decreased markedly. Some of the zones on the Pavey property above the old railroad may be at this level of filling, but this area was not visited.

Alteration of wallrock is the best method of selection priorities of targets. On the Pavey property there are many outcrops of alteration zones similar to the surface alteration on the Kuhn vein on the Omni property. The alteration on the Kuhn was used to select this as a primary target for developing additional reserves. This vein carries the highest values on drill intersections near surface and to depths of 800 feet below surface.

These areas of alteration and the zones located by Du Pont, Texaco, and Davidson should be carefully evaluated on the basis of paragenesis of the vein along with the shape and size of the alteration zones. When the potential targets are determined the veins should be opened along their strike length with cat, backhoe or blast trenches. All the significant veins probably will strike east of north and have extensive wallrock alteration. The shape and size of the alteration can and should be used to assist in the targeting of drill holes.

In some localities VLF-EM, and detail magnetics surveys can be used to locate the strike extensions of known veins as the wallrock alteration removes the weak magnetic signature in rocks and gives a linear conductor. Detail resistivity profiles over significant veins (width and grade) usually gives the depth extension of the vein for drill targets.

The property clearly has several significant veins as far as grade is concerned. There are many occurrences of intense wallrock alteration indicative of epithermal mineralization at depth. The current road access to the property will keep the cost of exploration to a minimum. A diligent exploration program using the above methods of evaluation should result in defining several drill targets of economic significance.

Yours truly,

F. Marshall Smith, P.Eng.

17 01 1990

incl.

#### CERTIFICATE OF THE OFFICERS, DIRECTORS AND PROMOTERS OF THE ISSUER

The foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this Prospectus as required by the <u>Securities Act</u> and its Regulations.

DATED: JULY 16, 1990

TODD WILLIAM PEEVER - Director Chief Executive Officer, Chief Financial Officer and Promoter

BRIAN ALLAN LUECK - Director

and Promoter

RANDALL PETER WINTERS -

Director

#### CERTIFICATE OF AGENT

To the best of our knowledge, information and belief, the foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this Prospectus as required by the <u>Securities Act</u> and its regulations.

DATED: JULY 16, 1990

HAYWOOD SECURITIES INC.

Per:

Georgia city